FACTORS ASSOCIATED WITH THE PARTICIPATION OF ADULT FARMERS IN ORGANIZED INSTRUCTION IN VOCATIONAL AGRICULTURE

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PREFACE

Providing educational opportunities for adult farmers is a concern of teachers of vocational agriculture. Much research has been conducted in regard to the improvement of method and procedure of adult instructional programs, but few studies have been made to ascertain the personal characteristics and socio-economic conditions of those farmers who are participating in the programs as compared to those who are not participating.

Before an effective program of organized instruction in vocational agriculture can be established for adult farmers, one must become familiar with the personal characteristics and needs of the group to be instructed. To determine if certain of these factors are associated with the participation of adult farmers in organized instruction in vocational agriculture is the purpose of this study. It is hoped that the findings of this study will contribute to a greater understanding of those persons whom we, as educators, seek to serve.

Indebtedness is acknowledged to Dr. Robert R. Price, Chairman of my committee; Dr. James Frasier; Dr. Howard Heding; and Dr. Roy Dugger for their valuable advice and criticisms and under whose guidance this study was made.

Appreciation is also expressed to the following groups: the teacher-trainers in the Department of Agricultural Education at the Oklahoma State University and the District Supervisors of Vocational Agriculture in Oklahoma for their assistance in identifying the communities to be studied; the ten teachers of vocational agriculture in whose communities the data were gathered; and the 100 farmers who supplied the basic data necessary for this study.

CHAPTER I

INTRODUCTION

Provisions for systematic instruction of adult farmers has become generally accepted as an obligation which should be assumed by all departments of vocational agriculture. This obligation for adult farmer education in vocational agriculture evolved from the interpretations of the first Federal Vocational Education (Smith-Hughes) Act of 1917. The Act specified that instruction in vocational agriculture should be "designed to meet the needs of persons over fourteen years of age who have entered upon or who are preparing to enter upon the work of the farm or of the farm home."[1] The provisions of the Act were delineated into policy statements by the United States Office of Education. One of the policy statements specified that one of the groups which should be recognized by states when developing plans, policies, and programs for vocational education in agriculture is "... adult farmers who are enrolled in adult farmer classes to improve themselves in specific farming occupations."[2]

Although the total number of adults enrolled in adult farmer classes nearly surpasses that of the total all-day class enrollment, there are

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[1]The National Vocational Education Act, Public Law Number 347, 64th Congress, U.S.A., February 23, 1917, Section 10.

[2]United States Office of Education, Administration of Vocational Education, Vocational Education Bulletin No. 1 (Washington, 1949), p. 38.

only approximately one-half of the departments in the United States reporting adult farmer classes.[3] According to these statistics there is still a large number of potential clientele who should be provided the opportunity to attend organized adult farmer classes.

There are many reasons postulated as to why more organized adult farmer classes are not being conducted. Some local teachers of agriculture have stated that there is no need for adult farmer education. In commenting upon the need for adult education, H. M. Hamlin stated:

> In educating for life in a changing world, we have learned not to rely entirely upon the development of adaptability in childhood and youth. With people living longer, and with change accelerating, we are providing education throughout adulthood to supplement earlier education and to help people to adapt to new technologies, new social conditions, and new ways of living.[4]

In referring more specifically to educational needs of farmers, Hamlin stated: "Young people from the farms have just now attained the level of education attained twenty years ago by young people from the cities; this twenty-year lag has persisted for a generation."[5] An expression which coincides with Hamlin's point of view on the need for adult education was stated in the preliminary conclusions of the President's Committee on Education Beyond the High School.[6] The committee concluded that our ideals and the increasing complexity of our

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[3]United States Department of Health, Education and Welfare; Office of Education, Division of Vocational Education, Digest of Annual Reports of State Boards for Vocational Education, Fiscal Year Ending June 30, 1954, (Washington, Government Printing Office, 1955), p. 13.

[4]H. M. Hamlin, "The Educational Problem," Better Farming Methods, XXIX, No. 8 (1957), p. 14.

[5]Ibid., p. 16.

[6]"Preliminary Conclusions of the President's Committee on Education Beyond High School," Adult Leadership (February, 1957), p. i.

civilization require that each individual develop his or her talents to the fullest extent. This country's educational system must be equipped to give professional guidance not only to the student in school or in college, but to the individual who, after his formal schooling is over, seeks further education.

Many educators in agricultural education have stated that, in general, adults are not interested in further education. In some areas the negative attitude of farmers toward education may be a serious obstacle when an attempt is made to organize classes. This attitude could be an outgrowth of a diversity of influential factors. Some adults consider education as being confined to the teaching of youth. In a study made by Havighurst and Orr[7] it was found that most adults view education as the pursuit of knowledge and information, the acquisition of abilities. The study further indicated that in the minds of adults, education is associated with the developmental period of life. In order to develop a readiness in adults to accept educational services, Havighurst and Orr stated: "... adult educators must first focus upon the problem of changing general attitudes of adults toward themselves as learners and toward education which they regard as a child's work only."[8]

Hamlin expressed a point of view which seems to indicate that he believes that negative attitudes toward adult education by farmers are exceptions to the rule. He contends that:

> Older farmers are far ahead of school men in their acceptance of adult education. It has been going on for a long time among farmers through farmers' institutes, fairs, and

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[7]Robert J. Havighurst and Betty Orr, Adult Education and Adult Needs, A Report Prepared for the Center for the Study of Liberal Education for Adults (Chicago, 1956), p. 61.

[8]Ibid.

> the activities of extension services and other public agencies. Farmers are usually glad to have their community schools provide it.[9]

There is a decreasing number of persons in agricultural education who contend that it is not feasible to promote adult classes because adults are inclined to repel changes in practices to which they have become accustomed. It is thought by this group of educators that time which ordinarily would be used for adult education could be spent more profitably with young farmer and all-day students. In regard to the contention that adult farmers are too old to learn, Ekstrom asserted:

> A cursory analysis of certain facts reveals weaknesses in this point of view for reasons which are quite obvious. First of all, the right of franchise in our form of government is confined to adults; this means that they are largely responsible for our political affairs. Adults are largely responsible for our financial affairs. They are the taxpayers who support our schools and they are entitled to some direct educational consideration from the schools.[10]

It is obvious that there are diversities of opinion as to the reasons why some departments of vocational agriculture do not promote organized adult farmer classes. There is much conclusive evidence which indicates that the reason for the lack of more adult education in vocational agriculture lies with the educators. Horne identified a specific reason why teachers do not conduct adult classes when he stated:

> All too frequently we hear the statement made by a teacher that he can secure no interest in an evening class. In

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[9]Herbert M. Hamlin, Agricultural Education in Community Schools (Danville, Illinois, 1949), p. 314.

[10]George F. Ekstrom and John B. McClelland, Adult Education in Vocational Agriculture (Danville, Illinois, 1952), p. 22.

> such cases the fault is usually traceable to the teacher. In these instances we usually find that the teacher is unfamiliar with his farmers, their farms, farm families, and community problems.[11]

Ekstrom expressed a related point of view when he contended:

> Before we can teach adult classes effectively, it is necessary that we become familiar with the personal characteristics of the group to be instructed. Recent data regarding the personnel of adult farmer classes in comprehensive areas are lacking.[12]

Statement of Problem

In view of the need to clarify common assumptions that there are definite reasons why adult farmers do or do not participate in organized classes of vocational agriculture, this study was undertaken to ascertain what factors are associated with the participation of adult farmers in vocational agriculture study groups. The principal problem of the research study was to ascertain if significant differences exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate with regard to certain specific personal characteristics and socio-economic conditions.

Definition of Terms

The term "adult farmer" is used in this research problem to refer to all individuals beyond the age of twenty-one who derive at least

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[11]Thomas J. Horne, "Securing and Maintaining Farmer Interest in Adult Education," Agricultural Education Magazine, XXIII, No. 7 (1951), p. 151.

[12]Ekstrom and McClelland, p. 19.

twenty-five per cent of their livelihood from being actively engaged in the business of farming.

The term "adult study group" is used in this research problem to refer to those kinds of organized classes which are designed to provide systematic instruction for adult farmers.

The term "systematic instruction" refers to classes that are organized to provide continuity of instruction within problem areas for a series of meetings. This definition does not preclude individual on-the-farm instruction as a means of providing systematic instruction. This term is in accordance with that which is defined and expressed by the United States Office of Education:

> In order that the instruction may be systematic and effective, it should be so planned that the work done in one year will show definite relationship to that offered in previous years, as well as that planned for succeeding years. Instruction in adult farmer classes should be:
>
> 1. Planned to assist established farmers in solving their farming problems.
> 2. Flexible enough so that it may be adjusted to meet emergency farm problems.
> 3. So organized that the work of each meeting of the class will have definite relationship to the course as a whole.
> 4. Organized on a seasonal basis.[13]

The term "factors" is used in this research study to refer to those characteristics, conditions, or observations of the personal or socio-economic aspects of adult farmers which may be related to or associated with their participation in organized instruction in vocational agriculture.

The term "significant factor" is used in this study to refer to those factors which, after an appropriate statistical treatment of

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[13]United States Office of Education, p. 41.

data, were found to be significantly associated at the five per cent level.

Scope of the Study

This study was undertaken to discover, through the obtaining and analyzing of data, whether significant associations exist between certain chosen criteria and the participation or non-participation of adult farmers in organized instruction in vocational agriculture. The criteria selected are not proposed to be the only possible choices of measuring devices; however, they are assumed to be some of the more important ones.

The scope of this study was limited to random samplings of the vocational agriculture departments in Oklahoma which conduct successfully organized adult farmer classes designed to provide systematic instruction in vocational agriculture. The scope of this study was further limited when those departments which qualified to be used in this study were stratified into the five respective supervisory districts in Oklahoma. From each of the five supervisory districts, two vocational agriculture departments were randomly chosen to be included in this study.

Although each of the five supervisory districts differ considerably in socio-economic conditions, types of farming, population density, climate, and topography, it was felt that a sampling from each of the five areas would provide more important findings than a sampling from a less heterogeneous population.

Basic Assumptions

This study is conditioned by the following assumptions:

1. Provisions for systematic instruction of adult farmers is an obligation which should be assumed by all departments of vocational agriculture.
2. That adult farmers are capable of being cognizant of their individual professional needs and that they can recognize educational offerings in adult study groups which would be beneficial in meeting these professional needs.

Importance of Study

As an increasing amount of emphasis is being placed on the importance of providing educational opportunities to out-of-school groups, it behooves each educator of adults to perpetually search for means of improving the quality and quantity of educational offerings. One basis for establishing a functional educational program for any group is to ascertain the personal characteristics and the socio-economic status of the individuals composing the group.

In communities where systematic instruction is being provided to the adult farmers, there are many who are not taking advantage of the educational offerings. Many factors which attribute to the participation or the non-participation of adult farmers in vocational agriculture study groups in these communities have not been definitely established.

This study is planned so that the findings may reveal the personal characteristics and the socio-economic status of those adult farmers who participate and those who do not participate in adult study groups.

The findings should provide educators with a better understanding of the clientele now being served through adult educational programs and provide insights to the extension of educational services to those who are not as yet participating.

CHAPTER II

REVIEW OF LITERATURE

A Philosophical Construct

If adult farmer education is to be effective, the educator must not only have a basic understanding of the farmer's material needs but also have an understanding and appreciation of his social, education, religious, and recreational needs. The educator must be cognizant of the fact that the adult farmer has developed particular understandings and attitudes and has acquired definite values and appreciations. These will have become internalized into the basic frame of reference of an adult individual to the extent that they are the individual; an attack upon any one of these characteristics is an attack upon the individual. Hamlin expressed the viewpoint that:

> Every individual has a set of basic motivations, desires, life-goals, or values which he lives by. They are shaped and determined by the group or culture into which he was born or with which he has associated himself. Differences in the prevailing beliefs and values of groups are a principal reason for differences in what they do or don't do.[1]

In a statement relating to the philosophy of adult farmer education Hamlin[2] commented that if one conceives education as having to do with

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[1]Herbert M. Hamlin, Agricultural Education in Community Schools, (Danville, Illinois, 1949), p. 217.

[2]Ibid., 269.

growth and change in people, he must diagnose personal needs as well as farming needs. Hamlin further stated that one is likely to find that any weaknesses in farming results and practices are traceable to disorders of the total personalities of the farmers, and not merely to lack of knowledge or skill with respect to farm practices.

Related Studies and Investigations

Several studies have been made in relation to adult education. The majority of the studies have been simple survey and opinion-gathering devices. Many investigations have pertained to local situations and are of little significance beyond the territorial boundaries of a given community. A relatively small number of studies have been found which deal with the adult farmer himself; those studies which do are usually concerned with only those farmers who attend organized classes.

There is a general lack of critical analyses of the socio-economic status of farmers and how those conditions bear upon their attitude toward, and participation in, organized adult study groups. Evidence clearly indicates that such investigations are of great importance in providing direction in the adult farmer education program.

A recent study was made by Mullins[3] in regard to the principal reasons which farmers gave for not attending organized adult farmer

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[3]Erdman Mullins, "A Study of Factors Influencing Participation in the Program of Vocational Agriculture as the Basis of Developing an Adult Farmer Program in the Haysi Area of Dickenson County, Virginia," (Unpub. Master's Thesis, Virginia Polytechnic Institute, Blacksburg, Virginia, 1956, 63 pp.) Reported in Vocational Division Bulletin No. 265, Supplement 10, Summaries of Studies in Agricultural Education, U. S. Office of Education (Washington, 1957), p. 64.

classes in the Haysi area of Dickenson County, Virginia. He made a cross-sectional survey of eighty farmers picked at random who received half or more of their total income from the farm. Of the eighty farmers interviewed, only one-third of them had been reached with some type of adult class. The primary reasons given by the farmers for not attending were: lack of time; off-farm work; poor roads; lived too far from school; not aware of the classes; and not invited. Mullins considered the lack of general information, instruction not needed, advanced age, poor health, and lack of transportation as minor reasons farmers gave for not attending class.

The findings in Mullins' study have socio-economic implications, but none of the data provides explicit or significant insights as to the differences which exist between those who attend adult classes and those who do not.

Phipps[4] reported that a study was made in 1955 which involved eighty-three adult farmer courses in sixty-three communities in Illinois. The 994 enrollees were studied in order to obtain information as to age, farming status, acres farmed, educational status, and previous adult course enrollment. The study indicated that the typical age of the 994 farmers was 35 to 45 and the median age was approximately 43 years; 81 per cent of the farmers were between the ages of 25 and 55. The study tended to provide conclusive evidence that adult farmer courses appeal to farmers of all ages, but indications were that the courses appeal

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[4]Lloyd J. Phipps, "Who Enrolls in Adult Farmer Courses?," Agricultural Education Magazine, XXIX, No. 11 (May, 1957), pp. 231, 233.

mostly to the farmer of middle age who have been farming for several years, who is fairly well established in farming, and whose children are past infancy.

The findings of the investigation further revealed that the number of renters and owners among the enrollees was about equal.

The sizes of farms represented by the enrollees ranged from less than 50 acres to more than 1,000 acres; however, most of the farmers studied were farming from 100 to 499 acres.

The mean number of years of school completed by the 994 farmers studied was 10.6. Thirty per cent of the 943 enrollees who indicated their formal schooling, had completed eight or less years of school. Fifty-eight per cent of the enrollees had completed one to four years of high school, and twelve per cent had completed one or more years of college.

The study showed that nearly forty-seven per cent of the farmers studied had been previously enrolled in one or more adult farmer courses.

By using census data for comparison, Phipps concluded that in the communities studied, the adult farmer programs offered by the public schools are reaching fairly representative groups of farmers in the communities in regard to age, farming status, size of farm, and formal schooling.

The study has merit in that it provides descriptive evidence as to the clientele that was being served with adult education classes. The study would have been of greater significance if a random sample had been taken of those farmers in each of the communities included in the study and then a comparative analysis made of those who do enroll and those who do not enroll.

Sledge recognized some factors which may be associated with the participation of adult farmers in vocational agricultural groups when he commented:

> There are many reasons why farmers might not and have not attended classes. It is recognized that increasing demands are being made constantly for the farmer's time. Such things as commercial television are appealing for more time. Also, civic and church activities and organizations of various nature understandably leave a lesser block of time for the farmer to devote to instructional programs.[5]

There are some studies, however, that would indicate that those farmers who were very active in other organizations would be most likely to participate in adult study groups. One such study was completed at the Pennsylvania State University in January, 1954.[6] This study was undertaken to isolate and describe the sociological and social psychological factors which distinguish active and inactive participants in formal rural organizations. The study involved three rural communities in Pennsylvania and included a survey of 310 people who were considered inactive and 314 people who were considered to be actively participating in community organizations. The population, which consisted of an equal number of males and females, ranged in ages from twenty to sixty-five years; all were married, able-bodied community residents. This study shows that people who are active in rural organizations generally occupy higher positions in their community than people who take little or no part in organizations. In comparison with the

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[5]George W. Sledge, "Young Farmer and Adult Farmer Enrollments Need Not be a Problem," Agricultural Education Magazine, XXVII, No. 9 (March, 1955), p. 202.

[6]Emory J. Brown, Elements Associated with Activity and Inactivity in Rural Organizations, Agricultural Experiment Station Bulletin 574 (University Park, Pennsylvania: The Pennsylvania State University, 1954), 41 pp.

inactives, the actives have more formal education and higher incomes; the actives also have smaller families. The study further indicated that age does not seem to differentiate high and low participants except in the early years of married life where young children would be a factor in preventing participation. Those who are most active live closer to where organizations meet than the less active. The actives were found to be in more organizations and taking more part than the non-actives. Although the inactives were better satisfied with educational and recreational facilities in the community, the actives were better satisfied with their life in general, social and family life, their work, income, religious opportunities, friendliness of the community, and their neighborhood.

The findings in the Pennsylvania study provide a basis for adult educators to establish rural educational programs which will involve more people. The study also clearly illustrates that attitudes of people are conditioned by their socio-economic status. It is, therefore, conceivable that in order for an educator to understand and appreciate particular attitudes of his clientele and prospective clients, he must have a thorough knowledge of the socio-economic status of those he seeks to educate.

As demonstrated in this study, one of the most feasible approaches to the ascertainment of possible significant influential factors which are associated with the participation of adults in organizations is to include both those persons who are active and those who are inactive in organizations.

Where adult farmer educators have tended to express as an obstacle the slowness of which a farmer changes his opinions, Oberholtzer[7] is inclined to express it as a virtue. In an exhaustive review of selected agricultural literature in regard to important problems of American agriculture, he found that questions as to the principal characteristics of rural people frequently appeared. Also, in the course of his study, Oberholtzer discovered a core of generalizations relating to the characteristics of rural people. He generalized that farmers, because of their slowness to change their opinions and because of their considering ideas subordinate to attitudes, have been national stablizers.

In searching for data which would indicate how land ownership and land tenantry affect rural life, he found documentary evidence that would substantiate the generalization that intellectual interests of farm owners are greater than those of their tenant neighbors. In relation to intellectual interests, Oberholtzer further found that farm owners universally have a greater volume and greater diversity of reading materials in their homes than do farmers of any other tenure status.

It is questionable whether Oberholtzer's generalizations would be of present value to one who is planning adult farmer classes. Although the study lacks the desirable factual information which is important in drawing sound conclusions, it does provide bases for developing hypotheses toward further research.

To ascertain the needs of out-of-school rural young men in Kentucky for systematic training in farming, the College of Education of the

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[7]Kenneth E. Oberholtzer, American Agricultural Problems in the Social Studies, (A Study Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy, Columbia University, New York City, New York, 1937), 119 pp.

University of Kentucky[8] undertook and completed a study which involved 446 young men between the ages of 16 and 25 in 33 counties. The problem of determining the needs for the young men resolved itself into two phases: (1) the number and characteristics of out-of-school young men on farms of the various communities; and (2) the extent to which the young men need help on farming problems and the extent to which they are interested in meeting with other young farmers to work on some of the problems.

The phase of the Kentucky study which has bearing on the problem which this writer has undertaken to resolve is the significant influence that the characteristics of the out-of-school young men have on the desire to participate in meeting with other young farmers. In relation to this situation the Kentucky study indicated: (1) The age of a young man did not seem to affect his desire to participate in meetings; (2) Apparently, the greater the amount a young man has invested in farming, the greater his interest in joining a young-farmer class; (3) The young men with the greater interest in meeting with a group came from the larger farms; (4) A significantly higher percentage of the married young men were interested in meeting with a young-farmer class than of the single young men; (5) Young men who had been students of high school vocational agriculture were proportionately more frequently interested in young-farmer classes than the young men who had not been students; and (6) Young men who were interested in assistance through young-farmer classes also were assisted by other agricultural agencies.

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[8]Stanley Wall, The Needs of Out-of-School Rural Young Men in Kentucky for Systematic Training in Farming, College of Education Bulletin (University of Kentucky, 1955), 126 pp.

The Kentucky study provided further evidence that definite relationships exist between particular characteristics of farmers and the degree to which they participate in study groups. The findings in the study have indicated that it is imperative for local vocational agriculture teachers to become acquainted with the personal characteristics and the socio-economic conditions of the farmers whom they expect to educate.

During the 1929-30 school year, Fleenor[9] made an extensive study of evening schools conducted by 518 vocational agriculture departments in 21 states. Although the study undertook to identify and describe various factors relating to the evening classes, some of the more pertinent factors concerned the personal characteristics of the enrollees. The number of enrollees included in this study was 30,395 farmers, or an average of 35.8 persons per school.

Some of the interesting findings which Fleenor made were that nearly forty per cent of the enrollees were in the age group from thirty-five to fifty-four; eight per cent of the enrollees were fifty-five years old or older. Those enrollees who would ordinarily be considered within the young-farmer group, sixteen to twenty-four years of age, were included in sixteen per cent of the group.

The educational status of the enrollees in the evening classes as found by Fleenor ranged from those who completed less than elementary grades to some who had attended college. It was discovered that 47.7 per cent of the total number of evening-school students had only an elementary education; 24.4 per cent had some high school training;

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[9]B. H. Fleenor, Adult Education in Agriculture, Kansas State Board for Vocational Education and Kansas Division of Agricultural Extension, Topeka, Kansas, 1932), 114 pp.

23.7 per cent had less than an elementary school education; and 4.2 per cent had some college training.

Fleenor's study showed that of the 30,395 students in all the 21 states, 59.5 per cent were farm owners; 34.2 per cent lived on rented farms; and 6.3 per cent were farm hands.

It was of further interest to note that there were 26.8 per cent of the farmers enrolled who had attended an evening-school during the preceding year. Also of interest, it was found that 15.2 per cent of the total number of students enrolled had one or more boys of their family enrolled in the teacher's all-day vocational agriculture class.

Possibly Fleenor's study may appear to be antiquated and out-of-date; however, it signifies that for several years there has been importance attached to the need for educators to know the characteristics of the students instructed. The study also provides a basis for making a comparative analysis of the persons now reached by adult farmer classes and those reached by classes several years ago; only from such analysis may we know in which direction our adult farmer education program is moving.

Hamlin[10] made a report of a study made by the Iowa Agricultural Experiment Station which was related to the particular status of Iowa's evening schools. With the assistance of the teachers of the agricultural evening schools, data were collected on approximately 500 farm operators in 13 communities well scattered in the state.

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[10]H. M. Hamlin, "Attendance at Iowa's Agricultural Evening Schools," Agricultural Education Magazine, XII, No. 2 (August, 1939), pp. 34, 35, 38.

The study indicated the median group of farmers enrolled was forty to forty-five years of age. Only nine per cent were under twenty-five and only twenty-one per cent were thirty or younger; this would indicate that evening schools were not reaching adequately the age groups which would be served by young-farmer classes. Seventeen per cent of the enrollees were over fifty years of age.

Fifty-four per cent of the enrollees were tenants, a figure only slightly below the average for the state of Iowa. Indications are that the difficulty in reaching tenants with agricultural education classes for adult farmers has been over-emphasized.

More than half of the farmers studied had farms ranging in size from 81 to 160 acres; sixty per cent had farms of 160 acres or less.

Forty-three per cent had gone beyond the eighth grade. Only eleven per cent had gone beyond high school.

Fifty-six per cent were members of the Farm Bureau. Thirty-eight per cent belonged to no general farmers' organization. Only six per cent belonged to general farm organizations other than the Farm Bureau.

The median distance from the homes of these farmers to their evening schools was slightly less than five miles. Seven per cent lived more than ten miles from their evening schools.

Thirty per cent were fathers of boys currently enrolled in vocational agriculture. Seven per cent were fathers of former vocational agriculture students.

This kind of study gives indications as to the closeness that adult classes reach a cross-section of farm operators in the state. It also, as brought out in the Iowa study, indicated the degree to

which the classes are reaching underprivileged persons untouched by other agencies.

A survey was made by Phipps[11] of 63 randomly selected schools in Illinois, which involved 994 farmers, for the purpose of determining the reasons why farmers enrolled in adult farmer courses. The findings gave conclusive evidence that the means by which a person is invited to attend adult meetings is a factor associated with the participation of the farmer in the class. Of the 994 farmers, 32.4 per cent stated that they were "influenced" to attend because they were contacted by the teacher; 31.4 per cent were "influenced" by a council member, committee member, or neighbor; 30.5 per cent were "influenced" to attend by receiving a card or letter about the course; 22.9 per cent were "influenced" to attend by reading publicity about the course.

Phipps concluded that a personal "face-to-face" invitation was an effective means of getting persons to participate in adult classes. He further suggested that if the vocational agriculture teacher does not have time to make personal invitations that a committee of farmers be encouraged to make "face-to-face" invitations.

The procedure used in the study reported by Phipps, just as indicated in other studies, was to provide a questionnaire to farmers who are presently participating in adult classes. This type of study provides only fragmentary evidence as to why farmers do or do not participate in adult classes.

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[11]Lloyd J. Phipps, "Why They Enroll in Adult Farmer Courses," Agricultural Education Magazine, XXIX, No. 11 (May, 1957), p. 260.

Summary of Review of Literature

Studies and investigations which have been made relating to the participation of adult farmers in organized instruction in vocational agriculture primarily concern those farmers who are actively engaged in the instructional program. Only a small number of studies can be found which portray a systematic approach in ascertaining the socio-economic status of those farmers who do not participate in organized adult farmer instruction as compared to the socio-economic status of those farmers who do participate. Most of the studies which have been undertaken to make a comparison between the non-participants and those who do participate have not been based on sampling techniques of population studies.

Studies which have been made in regard to those farmers who participate in organized instruction in vocational agriculture indicate that educational instruction appeals to all ages. The largest age group ranges from thirty-five to fifty years of age. Studies show that generally younger adults do not participate as much as middle-aged adults because in the early years of married life young children are a factor in preventing participation. It has also been shown in some studies that advanced age, ill-health, and other infirmities are reasons why the older groups of farmers do not participate.

Some adult farmer studies, and other similar social studies, provide evidence that those who participate in organized groups have had slightly more formal education than those who do not participate. Studies have shown,in general,that most adult farmers participating in organized instruction in vocational agriculture have completed the elementary grades.

The mean number of years of formal education completed by farmers included in these studies is approximately ten. A small percentage of participating farmers have had formal education beyond high school.

Some earlier investigations have shown that owner-operators were more inclined to participate in adult farmer instruction than were renter-operators. However, more recent studies indicate that there is no significant difference between the extent both groups participate. Also, studies, in general, do not support the assumption that operators of large farms tend to participate to a greater extent than operators of small farms.

Findings in some of the studies clearly show the extent to which farmers participate in organized instruction in vocational agriculture as a factor associated with the extent they participate in other kinds of organizations, especially national farm organizations.

Those studies which have considered the number of farmers who had sons currently enrolled, or who have had sons enrolled, in vocational agriculture indicate that a large per cent of participating farmers have sons with experiences in vocational agriculture in high school. This possibly could be a factor associated with the participation of farmers in organized instruction.

In obtaining opinions from farmers in regard to reasons they do or do not participate in organized instruction, some investigators have found that the means, if any, by which the farmers were notified of the available instructional program was an influencing factor. In some cases farmers have not participated because they were not informed; in other cases, written communication was not sufficient. Findings

definitely support the fact that personal invitations by the vocational agricultural teacher or by a committee of farmers is an effective means of getting farmers to participate in the instructional program.

CHAPTER III

DESIGN OF STUDY

The purposes of this chapter are to state the hypotheses, the criteria used in testing the hypotheses, the sampling method, and the procedure used in obtaining and analyzing the data.

The Hypotheses Tested

This study was based upon the testing of certain selected null hypotheses that with regard to certain specific personal characteristics and socio-economic conditions no significant difference exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate.

Selected hypotheses which were tested to provide evidence which might substantiate tenability were:

A. No significant differences exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate with regard to the following personal characteristics:

   (1) age,

   (2) years of formal education completed,

   (3) number who were enrolled in vocational agriculture while attending high school,

(4) number who have participated in Institutional On-Farm Training,

(5) marital status,

(6) number of children living at home,

(7) ages of children living at home,

(8) number of adult farmers whose sons have taken vocational agriculture in high school, and

(9) number of adult farmers whose sons were currently enrolled in vocational agriculture in high school.

B. No significant differences exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate with regard to the following factors concerning occupational status:

(1) off-farm employment in non-farm work,

(2) per cent of income from off-farm work,

(3) off-farm employment in farm work, and

(4) current farm tenure.

C. No significant differences exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate with regard to the following characteristics of their farm businesses:

(1) current investment in land and buildings,

(2) current investment in livestock,

(3) current investment in farm machinery, and

(4) means by which they became established in farming.

D. No significant differences exist between groups of adult farmers who participate in organized instruction in vocational agriculture

and those who do not participate with regard to the following sources from which assistance is obtained:

(1) Soil Conservation Service,

(2) Agricultural Stabilization and Conservation Service,

(3) county agent,

(4) vocational agriculture teacher,

(5) commercial agencies,

(6) service agencies, and

(7) farming associates.

E. No significant differences exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate with regard to the following sources from which they obtain agricultural information other than service agencies:

(1) radio,

(2) television,

(3) farm magazines,

(4) newspaper,

(5) experimental bulletins, and

(6) others.

F. No significant differences exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate with regard to the following types of organizational participation:

(1) religious and civic,

(2) farm,

(3) cooperative, and

(4) others.

G. No significant differences exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate with regard to attitude toward the following characteristics of the local public school:

(1) administration,

(2) academic teachers,

(3) vocational teachers, and

(4) vocational agriculture program.

H. No significant differences exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate with regard to their expressed familiarity with the local vocational agriculture program as related to the:

(1) local vocational agriculture teacher,

(2) local vocational agriculture program, and

(3) local adult farmer instructional program.

Included in this study were responses from adult farmers in regard to factors which influenced their participation or non-participation in adult study groups. Since this information did not lend itself to statistical treatment, only descriptions of the responses given by the farmers were presented.

The Sample

The study involved two groups of adult farmers in Oklahoma who were beyond the age of twenty-one and who derived at least twenty-five per cent of their livelihood from being actively engaged in the business of farming. These two groups of farmers were farming in communities in which systematic instruction for adult farmers was being conducted by the vocational agriculture department of the local high school. For at least the last two years, the two groups of farmers studied had equal privileges to participate in adult farmer instructional programs.

It was recognized at the beginning of the planning of this study that only a portion of the vocational agriculture departments were conducting systematic adult farmer instructional programs.[1] To identify those local vocational agriculture departments which provided systematic instruction for adult farmers, District Supervisors of Vocational Agriculture in Oklahoma, and Teacher Educators in Agricultural Education in Oklahoma were requested to assist in designating those departments which were conducting such programs. Those departments which were identified by two or more of the designated selectors as providing systematic instruction for adult farmers were used in this study as the population centers. Sixty of the 400 departments in Oklahoma were ultimately chosen on this basis. The existence of such programs was subsequently verified by a written communication from each teacher in the departments randomly selected.

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[1] See definition, page 6.

Since the study entailed the use of many personal interviews with farmers of the communities in which the designated vocational agriculture departments were located, it was considered feasible to use a random sampling technique to select the groups to be studied. To assure a geographical distribution in the sample, departments which qualified on the bases of the established criteria were stratified into the five respective supervisory districts in Oklahoma. The ten departments[2] were chosen for this study by randomly selecting two departments from each supervisory district. These were simple random samples drawn through the use of random sampling table numbers.[3]

The teachers in the vocational agriculture departments in the communities to be studied were informed of the plans for the study and a solicitation was made for their cooperation. Each of ten teachers was willing to cooperate in the study and they subsequently provided valuable assistance in implementing the investigation.

Since the investigation was concerned with certain characteristics of those farmers in the ten selected communites who participate in adult study groups and those who do not participate, a procedure was structured to identify the two groups to be studied.

To identify those farmers in each of the communities who participated in the organized adult study groups, the enrollment records of vocational agriculture departments were used. All farmers who were under twenty-one years of age and those who were not deriving at

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[2]See Appendix for names of departments, page 129.

[3]James E. Wert, Charles O. Neidt, and J. Stanley Ahmann, Statistical Methods, (New York, 1954), pp. 109-110.

least twenty-five per cent of their livelihood from being actively engaged in the business of farming were not included in the group; any farmer who was living outside of the district being served by the agriculture department was also excluded from the list of participating farmers.

To identify those farmers in each of the communities who did not participate in the organized adult study groups, a variety of resources was used. A transportation map of each community was obtained from the local superintendent of schools and the boundaries of the district being served by the schools were ascertained. Within the boundaries of the districts, each occupied farm residence was identified and given a distinguishing symbol. Those farms on which regular participators in systematic instruction resided were given symbols for distinguishing purposes. In addition, those residences in which the disqualified persons lived were crossed out on the map. The remainder of residences were given identifying numbers. A record was made of the numbers, the names of the families living at the identified residences, whether the head of the family was over twenty-one, and whether the income from the farming operations provided at least twenty-five per cent of the family income. The Agricultural Stabilization and Conservation Service of each of the ten communities provided most of the information about the non-participators which satisfied the restrictive criteria[4] established for an adult farmer in this study. Other resource people used to complete the identification procedure were vocational agriculture teachers and soil conservation personnel.

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[4]See definition, pages 5 and 6.

The number of adult farmers who participated in organized study groups in the ten instructional programs totaled 280 - a mean number of twenty-eight per department. The lowest number enrolled in any one instructional program was ten; the highest number in any one program was fifty-four.

The number of adult farmers who did not participate in organized study groups in the five instructional programs totaled 1,407 - a mean number of 140.7 per community. The highest number in any one community was 302 and the lowest number in any one community was twenty-seven.

Since plans for the study required that a personal interview be made with each of the farmers to be studied, it was considred to be more feasible to draw samples from each of the twenty population groups. An arbitrary number of five farmers who participated in adult study groups and five farmers who did not participate in adult study groups was used to constitute the number in the samples from each of the ten communities. These were simple random samples drawn by the use of random sampling table numbers.[5]

The five farmers selected at random from each of the ten population groups that were participating in organized classes of adult instruction comprised a group designated in this study as "participators" while those five farmers selected at random from each of the ten population groups that were not participating in organized classes were designated as "non-participators." The collective sample size consisted of fifty farmers in each of the two groups, or a total of 100 farmers.

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[5]Wert, Neidt, and Ahmann, op. cit.

Procedure for Collection of Data

The data for this study were obtained by the personal interview technique. This technique was used for the following reasons:

(1) Many people will provide information in oral form which they will not write.

(2) Responses could be secured from each member of the sample studied.

(3) Questions which were not readily understood could be clarified, and each person interviewed could be asked to clarify a response which might be misunderstood.

(4) Consideration could be given to the pressing duties of each person interviewed.

(5) A personal knowledge of conditions surrounding the factors being investigated could be secured by the investigator.

(6) The data supplied by the farmers could be, to some extent, verified by observation.

The schedule used to interview each of the 100 farmers was specifically structured to obtain data which was needed to test the stated hypotheses of this study. The interview schedule was first drafted with the use of criteria established as valid by other studies similar in nature and composition. With the advice of persons who had made similar studies, the interview schedule was later reconstructed to provide more clarity and more specific criteria relevant to the study.

After the interview schedule was brought to the final form, it was presented to a panel of eleven farmers who were not included in the study. The panel of farmers had several suggestions for modifying the interview schedule. To prevent possible jeopardizing of the entire

schedule, it was particularly suggested by the group that other types of questions which would furnish equal information be substituted for those pertaining to personal income and net worth.

After the interview schedule was reconstructed according to suggestions made by the panel of farmers, it was deemed to be in final form. A slight modification was considered necessary in the interview schedule after a few interviews were made because one question seemed to be a repetition.

After data were obtained and tabulated, they were subjected to statistical tests to determine whether significant differences were evident between the two groups. The tests used in the treatment of the data were the t test and the Chi-Square. The t test was used to treat data which pertained to the differences between means of the two independent sample groups of farmers included in this study. The Chi-Square test was used to treat data pertaining to variables which fell in three or more categories. These variables and the contingency correlations were determined.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Data presented in this chapter were obtained by personally interviewing 100 farmers randomly selected throughout the state of Oklahoma. The group consisted of ten farmers chosen at random from each of ten randomly chosen communities in which systematic instruction for adult farmers had been conducted in the vocational agriculture department of the local high school. To assure a geographical distribution in the sample, departments which qualified on the basis of the established criteria were stratified into the five vocational agriculture supervisory districts in Oklahoma.

In each of the communities studied, the ten farmers interviewed consisted of five who actively participated in organized instruction in vocational agriculture and five who did not participate. The farmers who participated in organized instruction were collated into a composite group of fifty. Throughout the study, reference to this group will always be as "participators." The farmers who did not participate in organized instruction were also collated into a group of fifty, and reference to this group will be "non-participators."

After the desired data were compiled, tables were developed and the null hypothesis concerning each factor was tested. The principal

hypotheses upon which this study were based are that with regard to certain specified personal characteristics and socio-economic conditions, no significant differences exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate. In the tabular presentation, two asterisks (**) immediately after the digits indicate a statistical difference between the groups which is highly significant, or significant at the one per cent level. One asterisk (*) appearing immediately after the digits is indicative of a significant difference at the five per cent level. When no asterisk appears, it will be an indication that the difference, if any, between the groups was possibly due to sampling error. As previously stated, the five per cent level of significance was selected for this study. When statistical treatments confirmed that differences do not exist at the five per cent level of significance, the null hypotheses were accepted.

Data Regarding Personal Characteristics

Data regarding the personal characteristics of the farmers include nine selected factors: (1) age of farmers; (2) level of formal education; (3) number of farmers enrolled in vocational agriculture while attending high school; (4) number who have had Institutional-On-Farm-Training; (5) marital status; (6) number of children living at home; (7) mean age of children living at home; (8) number of farmers whose sons have had vocational agriculture in high school; and (9) number of farmers whose sons were currently enrolled in vocational agriculture in high school. Some of the factors may not be commonly considered as

personal characteristics; however, as used in this study, they are more closely associated with personal characteristics than with other factor-categories.

Ages of adult farmers. One of the issues which has been prevalent among promoters of adult farmer education is whether age is a factor associated with the extent to which farmers participate in organized instruction. In referring to Table I, it is found that no significant difference exists between the mean ages of the participators and non-participators. It is noted that both groups have a mean and median age of approximately forty-six years. In the calculations it was found that forty-six was not only the mean and median of the non-participators, but it was also the mode. Since the difference between the means was significant, the hypothesis was accepted.

TABLE I

FREQUENCY DISTRIBUTION OF THE AGES OF ADULT FARMER PARTICIPATORS AND NON-PARTICIPATORS IN ORGANIZED INSTRUCTION IN VOCATIONAL AGRICULTURE

Class interval, ages in years	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
76 - 80	0	0.0	1	2.0
71 - 75	1	2.0	0	0.0
66 - 70	2	4.0	4	8.0
61 - 65	1	2.0	2	4.0
56 - 60	7	14.0	4	8.0
51 - 55	4	8.0	8	16.0
46 - 50	13	26.0	7	14.0
41 - 45	8	16.0	8	16.0
36 - 40	7	14.0	7	14.0
31 - 35	1	2.0	5	10.0
26 - 30	3	6.0	3	6.0
21 - 25	3	6.0	1	2.0
Totals	50	100.0	50	100.0
Mean age of farmers in each group		46.1		46.8
Difference between the mean ages of the two groups			- .7	
t-value of difference between the mean ages of the two groups			- .298	
Standard deviation of each group		11.1		12.6
Median age of farmers in each group		46.0		46.0

Level of formal education attained. One of the tasks of adult educators is encouraging adults who could benefit from organized educational instruction - especially those with low levels of formal education - to

participate in additional educational pursuits. However, data in Table II indicate that no difference exists between the mean years of formal education attained by the participating and non-participating farmers in this study. One finds that both groups show the same number completing high school and four years of college. Of the participators, there were two per cent more who completed the eighth grade than was true for those constituting the non-participators. That no significant difference existed between the groups sustained the acceptance of the hypothesis.

TABLE II

LEVEL OF FORMAL EDUCATION ATTAINED BY ADULT FARMERS

Years of education completed	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
16	1	2.0	1	2.0
15	1	2.0	1	2.0
14	4	8.0	2	4.0
13	4	8.0	3	6.0
12	12	24.0	12	24.0
11	2	4.0	1	2.0
10	4	8.0	5	10.0
9	0	0.0	2	4.0
8	12	24.0	13	26.0
7	4	8.0	3	6.0
6	2	4.0	2	4.0
5	0	0.0	2	4.0
4	2	4.0	1	2.0
3	2	4.0	1	2.0
2	0	0.0	0	0.0
1	0	0.0	0	0.0
0	0	0.0	1	2.0
Totals	50	100.0	50	100.0
Mean years of education completed by adult farmers in each group		9.9		9.5
Difference between the means of the two groups in years of education completed			.5	
t-value of difference between the mean of the two groups in years of education completed			.619	
Standard deviation of each group		3.18		3.21
Median years of education completed by each group		10.0		9.5

Number of farmers who had enrolled in vocational agriculture while attending high school. The type of formal education which would enhance the possibility of subsequent participation in adult farmer instruction has been of concern to many educators. As shown in Table III, while attending high school, fourteen per cent of the

TABLE III

ADULT FARMERS WHO WERE ENROLLED IN VOCATIONAL AGRICULTURE WHILE ATTENDING HIGH SCHOOL

Years enrolled	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
4	4	8.0	3	6.0
3	2	4.0	2	4.0
2	0	0.0	0	0.0
1	1	2.0	2	4.0
0	43	86.0	43	86.0
Totals	50	100.0	50	100.0
Mean years each group of farmers were enrolled		.46		.40
Difference between the mean years enrolled of the two groups			.6	
t-value of difference between the two groups			.258	
Standard deviation of each group		1.22		1.18

members of both groups were enrolled in vocational agriculture. However, data presented in the table indicate that two per cent more of the participators than of the non-participators had completed the four-year program.

The difference between the means of the two groups was not significant; therefore, the hypothesis was accepted.

Number of farmers who have participated in Institutional-On-Farm-Training. If inferences could be drawn in regard to previous occupational preparation of the groups of farmers, data in Table IV would seem

TABLE IV

ADULT FARMERS WHO HAVE PARTICIPATED IN INSTITUTIONAL-ON-FARM-TRAINING

Years enrolled	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
4	4	8.0	7	14.0
3	1	2.0	1	2.0
2	3	6.0	0	0.0
1	1	2.0	1	2.0
0	41	82.0	41	82.0
Totals	50	100.0	50	100.0
Mean years each group of farmers were enrolled		.52		.62
Difference between the mean years enrolled of the two groups			- .10	
t-value of difference between the mean years enrolled of the two groups			- .375	
Standard deviation of each group		1.22		1.44

to substantiate Table III. Data in Table IV show that eighteen per cent of the farmers in both groups have participated in Institutional-On-Farm-Training. However, data do show that twice as many of the non-participators completed a four year course than did the participators. The

means of the two groups were not significantly different; thus, the null hypothesis was accepted.

Number of children living at home. The participating and the non-participating group each contained one unmarried farmer. Within the group of participators, two farmers were widowers; within the group of non-participators, one farmer was a widower. It is observed in Table V

TABLE V

FREQUENCY DISTRIBUTION OF THE NUMBER OF ADULT FARMERS' CHILDREN LIVING AT HOME

Number of children	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
8	1	2.0	0	0.0
7	1	2.0	0	0.0
6	0	0.0	1	2.0
5	1	2.0	1	2.0
4	4	8.0	1	2.0
3	9	18.0	9	18.0
2	10	20.0	11	22.0
1	9	18.0	12	24.0
0	15	30.0	15	30.0
Totals	50	100.0	50	100.0
Mean number of children in each group		1.84		1.52
Difference between the mean number of children in the two groups			.32	
t-value of difference between the mean number of children of the two groups			.978	
Standard deviation of each group		1.82		1.38

that within each group of farmers, seventy per cent had children living at home. The number of farmers in the group of participators who have more than three children living at home doubles the number of farmers in the non-participating group. The evidence presented in Table V indicates that no significant difference existed between the means of the groups; therefore, the hypothesis was accepted.

Mean age of children living at home. Some adult educators have indicated that the young married adults are not as active as the older adult farmers in participating in organized social groups because of increased family responsibility due to younger children in the home. Data in Table VI show no significant difference between the mean ages of the children of participators and non-participators. It is shown that twenty-two per cent of the non-participators have children with a mean age below that commonly required for entering the primary grade in school, whereas only fourteen per cent of the participators have children with a mean age of pre-school level. One of the greatest spreads between the mean age of the children of the two groups appears at the senior high school level. Data provided evidence that the participators had eighteen per cent more children of the senior high school mean age group than did the non-participators. The medians of the mean ages of the two groups of children show a relatively large variation. However, as indicated in the table, there was no significant difference between the averages of the mean ages of the children; therefore, the null hypothesis was accepted.

TABLE VI

FREQUENCY DISTRIBUTION OF THE MEAN AGE OF ADULT FARMERS' CHILDREN LIVING AT HOME

Class interval, mean ages in years	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
21 - 22	0	0.0	1	2.0
19 - 20	1	2.0	1	2.0
17 - 18	4	8.0	0	0.0
15 - 16	7	14.0	3	6.0
13 - 14	4	8.0	9	18.0
11 - 12	6	12.0	4	8.0
9 - 10	4	8.0	3	6.0
7 - 8	2	4.0	3	6.0
5 - 6	2	4.0	5	10.0
3 - 4	2	4.0	5	10.0
1 - 2	3	6.0	1	2.0
0	15	30.0	15	30.0
Totals	50	100.0	50	100.0
Average of the mean ages of children in each group		8.02		7.06
Difference between the average of the mean ages of children in the two groups			.6	
t-value of difference between average of the mean ages of children of the two groups			.732	
Standard deviation of each group		6.78		6.19
Median average age of children in each group		9.0		6.0

Number of farmers whose sons had taken vocational agriculture in high school. Thirty-two per cent of the participators had sons who had taken vocational agriculture in high school whereas twenty-two per cent

TABLE VII

FREQUENCY DISTRIBUTION OF THE NUMBER OF ADULT FARMERS WHOSE SONS HAD TAKEN VOCATIONAL AGRICULTURE IN HIGH SCHOOL

Number of sons	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
5	0	0.0	1	2.0
4	0	0.0	1	2.0
3	1	2.0	1	2.0
2	3	6.0	2	4.0
1	12	24.0	6	12.0
0	34	68.0	39	78.0
Totals	50	100.0	50	100.0
Mean number of sons who had taken vocational agriculture in each group		.42		.44
Difference between the mean number of sons who had taken vocational agriculture in the two groups			- .2	
t-value of difference between the mean number of sons who had taken vocational agriculture of the two groups			- .112	

of the non-participators had sons who had been enrolled. However, data in Table VII show that the non-participators had one more in the total number of sons who had taken vocational agriculture. The difference between the means of the two groups was not significant and, therefore, the hypothesis was accepted.

Number of farmers whose sons were currently enrolled in vocational agriculture. In referring to Table VIII, one finds that there were

TABLE VIII

FREQUENCY DISTRIBUTION OF THE NUMBER OF ADULT FARMERS WHOSE SONS WERE CURRENTLY ENROLLED IN VOCATIONAL AGRICULTURE IN HIGH SCHOOL

Number of sons	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
2	4	8.0	0	0.0
1	9	18.0	5	10.0
0	37	74.0	45	90.0
Totals	50	100.0	50	100.0
Mean number of sons enrolled in each group		.34		.10
*Difference between the mean number of sons enrolled in the two groups			.24	
t-value of difference between the mean number of sons enrolled of the two groups			2.44*	

*Significant at the five per cent level.

nearly three times as many participators who had sons currently enrolled in vocational agriculture as was true for individuals who did not participate. Of the ten per cent of the non-participators who had sons currently taking vocational agriculture, all had one son enrolled. Eight per cent of the participators who had sons currently enrolled had two sons taking vocational agriculture. A greater number of the participators had sons currently enrolled in vocational agriculture than did non-participators. The difference between means of the groups was significant; thus, the hypothesis was rejected.

Data Regarding Economic Conditions

The factors of economic conditions drawn from the data gathered were categorized into eight objects of consideration. They were: (1) months out of year adult farmers were employed in non-farm work; (2) per cent of net income received by adult farmers from non-farm work; (3) months out of year adult farmers were employed in farm work off own farm; (4) acres of land rented by adult farmers; (5) acres of land owned by adult farmers; (6) total acres of land operated by farmers; (7) current investment of adult farmers in land and buildings; (8) current investment of adult farmers in livestock; (9) current investment of adult farmers in machinery; (10) primary sources of income used by adult farmers in becoming established in farming; and (11) secondary sources of income used by adult farmers in becoming established in farming.

Months out of year adult farmers were employed in non-farm work. Providing systematic instruction in vocational agriculture which would appeal to and meet the needs of part-time farmers has been an increasingly important phase of adult education. The relatively large proportion of part-time farmers living within the community has been appropriated as a basis by some vocational agricultural teachers in assuming that attempts to develop an organized program of adult farmer instruction would not be feasible. Data presented in Table IX show that forty per cent of both the participators and the non-participators were of part-time farmer status. The tabular presentation shows that a larger per cent of the non-participators than participators devote a greater number of months out of the year to non-farm work. This variation

TABLE IX

MONTHS OUT OF YEAR ADULT FARMERS WERE EMPLOYED IN NON-FARM WORK

Months employed	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
10	4	8.0	15	30.0
9	2	4.0	1	2.0
8	2	4.0	1	2.0
7	0	0.0	0	0.0
6	4	8.0	0	0.0
5	0	0.0	0	0.0
4	1	2.0	1	2.0
3	1	2.0	2	4.0
2	5	10.0	0	0.0
1	1	2.0	0	0.0
0	30	60.0	30	60.0
Totals	50	100.0	50	100.0
Mean number of months each group of adult farmers were employed in non-farm work		2.36		3.62
Difference between the mean number of months the two groups were employed in non-farm work			- 1.26	
t-value of difference between the mean number of months the two groups were employed in non-farm work			- 1.52	
Standard deviation of each group		3.18		4.24

is obvious when one notes that the standard deviation of the non-participating group exceeds that of the participators. It is shown that thirty-two per cent of the non-participators possibly spend only week-ends, holidays, and yearly vacation leave on actual farm work; whereas only twelve

per cent of the participators depend on these "off days" for work on the farm. The data in Table IX does show, however, that the difference between the means of the two groups was not significant; therefore, the hypothesis was accepted.

Per cent of net income received by adult farmers from non-farm work. Although data presented in Table IX showed that there was no significant difference between the mean number of months that the participators and non-participators spent in farm employment, data presented in Table X do show a highly significant difference between the mean per cent of net income derived from non-farm work, this difference being in favor of the non-participators. It is found that thirty per cent of the non-participators derive more than half of their net income from non-farm employment whereas only twenty-two per cent of the participators receive more than half of their net income from employment other than farming. The mean difference between the groups in regard to per cent of income from non-farm employment was highly significant; therefore, the hypothesis was rejected.

TABLE X

FREQUENCY DISTRIBUTION OF THE PER CENT OF NET INCOME RECEIVED BY ADULT FARMERS FROM NON-FARM WORK

Per cent of income	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
71 - 75	3	6.0	0	0.0
66 - 70	4	8.0	9	18.0
61 - 65	2	4.0	2	4.0
56 - 60	2	4.0	4	8.0
51 - 55	0	0.0	0	0.0
46 - 50	3	6.0	2	4.0
41 - 45	0	0.0	0	0.0
36 - 40	0	0.0	0	0.0
31 - 35	0	0.0	1	2.0
26 - 30	0	0.0	1	2.0
21 - 25	0	0.0	0	0.0
16 - 20	3	6.0	1	2.0
11 - 15	1	2.0	0	0.0
6 - 10	2	4.0	0	0.0
1 - 5	0	0.0	0	0.0
0	30	60.0	30	60.0
Totals	50	100.0	50	100.0
Mean per cent of net income each group of adult farmers received from non-farm employment		19.9		23.66
Difference between the mean per cent of net income the two groups received from non-farm employment			- 3.76	
t-value of difference between the mean per cent of net income the two groups received from non-farm employment			- 6.22**	
Standard deviation of each group		28.9		30.8

**Significant at the one per cent level.

Months out of year adult farmers were employed in farm work off own farm. As presented in Table XI, eight per cent more of the

TABLE XI

MONTHS OUT OF YEAR ADULT FARMERS WERE EMPLOYED IN FARM WORK OFF OWN FARM

Months employed	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
10	0	0.0	1	2.0
9	0	0.0	1	2.0
8	0	0.0	0	0.0
7	0	0.0	0	0.0
6	0	0.0	0	0.0
5	0	0.0	1	2.0
4	1	2.0	0	0.0
3	0	0.0	0	0.0
2	0	0.0	0	0.0
1	1	2.0	3	6.0
0	48	96.0	44	88.0
Totals	50	100.0	50	100.0
Mean number of months each group of adult farmers were employed in farm work off own farm		.1		.54
Difference between the mean number of months the two groups were employed in farm work off own farm				- .44
t-value of difference between the mean number of months the two groups were employed in farm work off own farm				- 1.48

non-participators were engaged in farm work off their own farms than the participators. Of the non-participators, four per cent were employed

nearly full-time as employees on other farms or ranches. The data presented do not indicate a significant difference between the mean of the groups; the hypothesis was accepted.

Acres of land rented by adult farmers. Data presented in Table XII indicate that a highly significant difference existed between the mean number of acres of land rented by the participators and the mean acres rented by the non-participators. Data show that the group of non-participators possess the extreme upper range of acres rented and that the variation from the mean acres rented of the group is relatively large. As a comparison, the standard deviation of the non-participators exceeds that of the participators. The tabular presentation also indicates that only fifty-two per cent of the non-participants expanded their farming operation beyond their personally owned farm whereas sixty-six per cent of the participators expanded their operations to include rented land. The greater mean number of acres rented by the participators than the non-participators was of highly significant difference; therefore, the null hypothesis was rejected.

TABLE XII

FREQUENCY DISTRIBUTION OF ACRES OF LAND RENTED BY ADULT FARMERS

Class interval, acres rented	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Over 1800	0	0.0	1	2.0
1701-1800	0	0.0	1	2.0
1601-1700	0	0.0	0	0.0
1501-1600	1	2.0	0	0.0
1401-1500	1	2.0	0	0.0
1301-1400	0	0.0	0	0.0
1201-1300	0	0.0	0	0.0
1101-1200	0	0.0	0	0.0
1001-1100	0	0.0	0	0.0
901-1000	1	2.0	0	0.0
801-900	3	6.0	0	0.0
701-800	2	4.0	0	0.0
601-700	2	4.0	2	4.0
501-600	0	0.0	1	2.0
401-500	1	2.0	1	2.0
301-400	5	10.0	6	12.0
201-300	2	4.0	3	6.0
101-200	9	18.0	5	10.0
1-100	6	12.0	6	12.0
0	17	34.0	24	48.0
Totals	50	100.0	50	100.0
Mean acres rented by each adult farmer group		279.6		253.0
Difference between the mean acres rented by the two groups			26.6	
t-value of difference between the mean acres rented by the two groups			4.79**	
Standard deviation of each group		380		676.1
Median acres rented by each group		160		40.0

**Significant at the one per cent level.

Acres of land owned by adult farmers. In ascertaining the number of operators who owned land, one finds that the data presented in Table XIII show seventy-eight per cent of the non-participators were land owners as compared to seventy-two per cent of the participators as owners. The mode acres owned by each group lies within the interval between 151 to 200 acres. The per cent of owners in the participating group which lie within the mode interval doubles that of the non-participators. Although the difference in the per cent owing land is small, the mean number of acres owned by the non-participators was significantly greater than the mean number of acres owned by the participators. The difference was highly significant; thus, the hypothesis was rejected.

TABLE XIII

FREQUENCY DISTRIBUTION OF ACRES OF LAND OWNED BY ADULT FARMERS

Class interval, acres owned	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
801-850	0	0.0	1	2.0
751-800	0	0.0	1	2.0
701-750	1	2.0	1	2.0
651-700	1	2.0	1	2.0
601-650	1	2.0	0	0.0
551-600	0	0.0	2	4.0
501-550	0	0.0	1	2.0
451-500	0	0.0	0	0.0
401-450	4	8.0	2	4.0
351-400	1	2.0	4	8.0
301-350	2	4.0	3	6.0
251-300	2	4.0	1	2.0
201-250	1	2.0	4	8.0
151-200	16	32.0	8	16.0
101-150	5	10.0	2	4.0
51-100	2	4.0	6	12.0
1-50	0	0.0	2	4.0
0	14	28.0	11	22.0
Totals	50	100.0	50	100.0
Mean acres owned by each adult farmer group		183.6		232.0
Difference between the mean acres owned by the two groups		- 45.4		
t-value of difference between the mean acres owned by the two groups		- 11.56**		
Standard deviation of each group		183.17		228.8
Median acres owned by each group		160.0		160.0

**Significant at the one per cent level

Total acres of land operated by adult farmers. Although the participators operated a significantly greater number of rented acres and the non-participators operated a significantly greater number of owned acres the means of the total number of acres operated by each of the two groups show no significant difference. However, data presented in Table XIV indicate that the mode number of acres operated by the participators lies within the 101-201 acre interval, whereas the mode number of acres operated by the non-participators lies within the 301-400 acre interval. The one non-participator who operates more than 1,800 acres was observed to be operating 4,480 acres. This is more than double the number of acres farmed by the operator with the largest acreage in the participating group. In considering a measure of variability, one notes that the standard deviation of the non-participators exceeds that of the participators. The difference between the mean acres operated by the two groups of farmers was not significant; thus, the hypothesis was accepted.

TABLE XIV

FREQUENCY DISTRIBUTION OF TOTAL ACRES OF LAND OPERATED BY ADULT FARMERS

Class interval, acres operated	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Over 1800	0	0.0	1	2.0
1701-1800	1	2.0	1	2.0
1601-1700	0	0.0	0	0.0
1501-1600	0	0.0	0	0.0
1401-1500	1	2.0	0	0.0
1301-1400	0	0.0	0	0.0
1201-1300	0	0.0	0	0.0
1101-1200	1	2.0	2	4.0
1001-1100	2	4.0	0	0.0
901-1000	2	4.0	1	2.0
801-900	3	6.0	3	6.0
701-800	1	2.0	1	2.0
601-700	3	6.0	1	2.0
501-600	2	4.0	4	8.0
401-500	2	4.0	3	6.0
301-400	7	14.0	14	28.0
201-300	9	18.0	6	12.0
101-200	16	32.0	7	14.0
1-100	0	0.0	6	12.0
Totals	50	100.0	50	100.0
Mean acres operated by each adult farmer group		463.2		485.0
Difference between the mean acres operated by the two groups			- 21.8	
t-value of difference between the mean acres operated by the two groups			- 1.96	
Standard deviation of each group		379.6		659.4
Median acres operated by each group		305.0		345.0

Current investment of adult farmers in land and buildings.

Reference to Table XV shows only a small spread between the mean of the participators and the non-participators in regard to the dollars which were currently invested in land and buildings. The mode investment of those in both groups who have investments in land and buildings lies within the 15,001 to 20,000 dollar interval. However, a comparison of the standard deviation of the two groups reveals that the non-participators have a relatively greater amount of variation within their group than do the participators. The hypothesis was accepted in that no significant difference existed between the mean of the two groups.

TABLE XV

FREQUENCY DISTRIBUTION OF CURRENT INVESTMENT OF ADULT FARMERS IN LAND AND BUILDINGS

Class interval, dollars invested	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Over 90,000	0	0.0	1	2.0
85,001-90,000	1	2.0	0	0.0
80,001-85,000	1	2.0	0	0.0
75,001-80,000	0	0.0	0	0.0
70,001-75,000	0	0.0	0	0.0
65,001-70,000	0	0.0	0	0.0
60,001-65,000	0	0.0	0	0.0
55,001-60,000	1	2.0	1	2.0
50,001-55,000	1	2.0	1	2.0
45,001-50,000	2	4.0	2	4.0
40,001-45,000	0	0.0	1	2.0
35,001-40,000	1	2.0	0	0.0
30,001-35,000	1	2.0	0	0.0
25,001-30,000	4	8.0	5	10.0
20,001-25,000	5	10.0	5	10.0
15,001-20,000	8	16.0	7	14.0
10,001-15,000	6	12.0	3	6.0
5,001-10,000	6	12.0	6	12.0
1-5,000	3	6.0	9	18.0
-0	10	20.0	9	18.0
Totals	50	100.0	50	100.0
Mean dollars invested by each adult farmer group		19,660.00		19,820.00
Difference between the mean dollars invested by the two groups			- 120.00	
t-value of difference between the mean dollars invested by the two groups			- .029	
Standard deviation of each group		20,372.66		33,010.01
Median dollars invested by each group		15,500.00		12,000.00

Current investment of adult farmers in livestock. Although the mean number of dollars invested in livestock, as shown in Table XVI, by the non-participators is approximately ten per cent greater than the participators, the difference existing between the groups is not significant. It is shown by the data presented that the mode number of dollars invested by those in both groups who have cattle lies within 1,001 and 3,000 dollar interval. The difference between the mean of the groups was not statistically significant; therefore, the hypothesis was accepted.

TABLE XVI

FREQUENCY DISTRIBUTION OF CURRENT INVESTMENT OF ADULT FARMERS IN LIVESTOCK

Class interval, dollars invested	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
43,001-45,000	0	0.0	1	2.0
41,001-43,000	0	0.0	0	0.0
39,001-41,000	0	0.0	0	0.0
37,001-39,000	0	0.0	0	0.0
35,001-37,000	0	0.0	0	0.0
33,001-35,000	0	0.0	1	2.0
31,001-33,000	0	0.0	0	0.0
29,001-31,000	0	0.0	0	0.0
27,001-29,000	0	0.0	0	0.0
25,001-27,000	0	0.0	0	0.0
23,001-25,000	1	2.0	0	0.0
21,001-23,000	0	0.0	2	4.0
19,001-21,000	2	4.0	0	0.0
17,001-19,000	0	0.0	1	2.0
15,001-17,000	0	0.0	0	0.0
13,001-15,000	2	4.0	2	4.0
11,001-13,000	2	4.0	1	2.0
9,001-11,000	2	4.0	1	2.0
7,001-9,000	2	4.0	2	4.0
5,001-7,000	9	18.0	4	8.0
3,001-5,000	6	12.0	7	14.0
1,001-3,000	17	34.0	14	28.0
1-1,000	4	8.0	8	16.0
-0	3	6.0	6	12.0
Totals	50	100.0	50	100.0
Mean dollars invested by each adult farmer group		5,602.00		6,056.00
Difference between the mean dollars invested by the two groups			- 454.00	
t-value of difference between the mean dollars invested by the two groups			- .303	
Standard deviation of each group		5,534.50		8,913.90
Median dollars invested by each group		3,550.00		3,000.00

Current investment of adult farmers in machinery. As shown in Table XVII there is a highly significant difference between the mean amount of capital which was currently invested by the two groups of farmers. The participators had more than double the mean amount of investment in machinery as compared to the mean of the non-participators. However, the majority of both groups had less than 6,000 dollars invested. The data also indicate that the mode dollars invested in machinery lies within the one to 2,000 dollar interval. The difference between the mean of the two groups was highly significant; consequently, the null hypothesis was rejected.

TABLE XVII

FREQUENCY DISTRIBUTION OF CURRENT INVESTMENT OF ADULT FARMERS IN MACHINERY

Class interval, dollars invested	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
28,001-30,000	1	2.0	0	0.0
26,001-28,000	0	0.0	0	0.0
24,001-26,000	0	0.0	0	0.0
22,001-24,000	0	0.0	0	0.0
20,001-22,000	0	0.0	0	0.0
18,001-20,000	3	6.0	1	2.0
16,001-18,000	1	2.0	0	0.0
14,001-16,000	1	2.0	0	0.0
12,001-14,000	2	4.0	0	0.0
10,001-12,000	0	0.0	1	2.0
8,001-10,000	6	12.0	2	4.0
6,001-8,000	5	10.0	1	2.0
4,001-6,000	8	16.0	8	16.0
2,001-4,000	8	16.0	13	26.0
1-2,000	12	24.0	19	38.0
-0	3	6.0	5	10.0
Totals	50	100.0	50	100.0
Mean dollars invested by each adult farmer group		6,588.00		3,202.00
Difference between the mean dollars invested by the two groups			3,386.00	
t-value of difference between the mean dollars invested by the two groups			3.166**	
Standard deviation of each group		6,523.51		3,672.32
Median dollars invested by each group		5,000.00		2,500.00

**Significant at the one per cent level.

Primary sources of capital used by adult farmers in becoming established in farming. Data presented in Table XVIII show that the

TABLE XVIII

PRIMARY SOURCES OF CAPITAL USED BY ADULT FARMERS IN BECOMING ESTABLISHED IN FARMING

Source of capital	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
From farming	22	44.0	22	44.0
From off-farm employment	11	22.0	19	38.0
Gift or inheritance	3	6.0	1	2.0
Loans	13	26.0	6	12.0
Other	1	2.0	2	4.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		6.04		

same per cent of farmers in both groups obtained their primary source of capital to become established in farming from direct returns of the farm business. Sixteen per cent more of the non-participators received sources of capital from off-farm employment than those who participated. Twice as many of the participators used loans as a primary source of capital than did the non-participators. Although these differences can be noted between the two groups, they were not significant; therefore, the null hypothesis was accepted.

Secondary sources of capital used by adult farmers in becoming established in farming. As shown in Table XIX, forty-four per cent

TABLE XIX

SECONDARY SOURCES OF CAPITAL USED BY ADULT FARMERS IN BECOMING ESTABLISHED IN FARMING

Source of capital	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
From farming	22	44.0	16	32.0
From off-farm employment	5	10.0	6	12.0
Gift or inheritance	1	2.0	0	0.0
Loans	22	44.0	28	56.0
Other	0	0.0	0	0.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		2.75		

of the participators used direct returns from their farming endeavors as a secondary source to become eventually established in farming, whereas thirty-two per cent of the non-participators used this as a secondary source. Data show that twelve per cent more of the non-participators used loans as a secondary source than did the participators. The means by which the two groups obtained secondary sources of capital was not significantly different; thus, the hypothesis was accepted.

Data Regarding the Extent Adult Farmers Used Various Sources in Obtaining Technical Agricultural Assistance and Information

Whether farmers who actively participate in organized instruction in vocational agriculture use the class instruction as a primary source of agricultural assistance and information has been a matter of conjecture. Some educators have stated that an adult farmer who participates in organized instruction in vocational agriculture is much more inclined to use other sources of agricultural assistance than those farmers who do not participate. Still, other educators believe that organized instruction in vocational agriculture meets the needs of most of the participators; therefore, they are not as likely to seek other sources of agricultural assistance as the non-participators. This study includes an attempt to clarify some of those points of issue as they pertain to: (1) extent to which the Soil Conservation Service was used by adult farmers in solving farm problems; (2) extent to which the Agricultural Stabilization and Conservation Service was used by adult farmers in solving farm problems; (3) extent to which the service of the County Agent was used by adult farmers in solving farm problems; (4) extent to which the service of the local teacher of vocational agriculture was used by adult farmers in solving farm problems; (5) extent to which the service of commercial agents was used by adult farmers in solving farm problems; (6) extent to which other service agencies were used by adult farmers in solving farm problems; and (7) extent information from farming associates was used by adult farmers in solving farm problems.

Extent to which Soil Conservation Service was used by adult farmers in solving farm problems. Data presented in Table XX indicate that

TABLE XX

EXTENT TO WHICH SOIL CONSERVATION SERVICE WAS USED BY ADULT FARMERS IN SOLVING FARM PROBLEMS

Extent used	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	8	16.0	5	10.0
Moderate	20	40.0	15	30.0
Little	17	34.0	21	42.0
No	5	10.0	9	18.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		2.96		

participating farmers used the services of the Soil Conservation Service to a slightly greater extent than the non-participators. Fifty-six per cent of the participators used the service from moderate to great extent, whereas forty per cent of the non-participators used the service from moderate to great extent. The data also show that more of the non-participators than the participators did not use the service whatsoever. The difference between the groups was not significant; therefore, the null hypothesis was accepted.

Extent to which Agricultural Stabilization and Conservation Service was used by adult farmers in solving farm problems. In Table XXI data indicate that more than four times as many of the

TABLE XXI

EXTENT TO WHICH AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE WAS USED BY ADULT FARMERS IN SOLVING FARM PROBLEMS

Extent used	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	17	34.0	4	8.0
Moderate	13	26.0	17	34.0
Little	10	20.0	14	28.0
No	10	20.0	15	30.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		10.24*		

*Significant at the five per cent level.

participators used the Agricultural Stabilization and Conservation Service to a greater extent than did the non-participators. The data also show that ten per cent of the participators did not use the assistance of the Agricultural Stabilization and Conservation Service, whereas, thirty per cent of the non-participators did not use the service. The participators used the service more than the non-participators to the extent that the difference was significant. The null hypothesis was rejected.

Extent to which service of county agent was used by adult farmers in solving farm problems. Ten per cent more of the participators than the non-participators responded that they used the county agent's service to moderate and little extents. Data in Table XXII will not only bear

TABLE XXII

EXTENT TO WHICH SERVICE OF COUNTY AGENT WAS USED BY ADULT FARMERS IN SOLVING FARM PROBLEMS

Extent used	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	4	8.0	3	6.0
Moderate	14	28.0	9	18.0
Little	20	40.0	15	30.0
No	12	24.0	23	46.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		5.40		

this out, but they also show that nearly half of the non-participators and nearly one-fourth of the participators did not use this service. The difference between the groups was not significant; therefore, the hypothesis was accepted.

Extent to which service of local vocational agriculture teacher was used by adult farmers in solving farm problems. As shown by data in Table XXIII, there is a significant difference between the extent

TABLE XXIII

EXTENT TO WHICH SERVICE OF LOCAL VOCATIONAL AGRICULTURE TEACHER WAS USED BY ADULT FARMERS IN SOLVING FARM PROBLEMS

Extent used	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	17	34.0	8	16.0
Moderate	23	46.0	9	18.0
Little	10	20.0	11	22.0
No	0	0.0	22	44.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups			31.41**	

**Significant at the one per cent level.

service of the local vocational agriculture teacher was used by the participators and the extent the service was used by non-participators. It is noted that over twice as many of the participators used the teacher's services as did the non-participators. All of the participators used the services of the agriculture teacher to some extent; however, forty-four per cent of the non-participators reported that they did not use the services of the agriculture teacher in any way whatsoever. The null hypothesis was rejected in that the difference between the groups was highly significant.

Extent to which service of commercial agents was used by adult farmers in solving farm problems. According to data presented in Table XXIV, participators used the services of commercial agents more

TABLE XXIV

EXTENT TO WHICH SERVICE OF COMMERCIAL AGENTS WAS USED BY ADULT FARMERS IN SOLVING FARM PROBLEMS

Extent used	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	0	0.0	1	2.0
Moderate	10	20.0	1	2.0
Little	6	12.0	7	14.0
No	34	68.0	41	82.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		9.09*		

*Significant at the five per cent level.

than the non-participators. The greatest difference exists in the per cent of respondents who used the service to a moderate extent. Twenty per cent of the participators used the service to a moderate extent; whereas, only two per cent of the non-participators used the assistance to this extent. A significant difference between the groups existed; therefore, the hypothesis was rejected.

Extent to which other service agencies were used by adult farmers in solving farm problems. Other service agencies, such as the Indian Service, government wolf trappers, and federal veterinarian, were used to some extent by both participators and non-participators. As shown in Table XXV, the difference between the two groups of farmers in regard to extent of participation was not significant; consequently, the acceptance of the hypothesis was sustained.

TABLE XXV

EXTENT TO WHICH OTHER SERVICE AGENCIES WERE USED BY ADULT FARMERS IN SOLVING FARM PROBLEMS

Extent used	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	2	4.0	0	0.0
Moderate	1	2.0	0	0.0
Little	2	4.0	1	2.0
No	45	90.0	49	98.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		3.50		

Extent to which information from farming associates was used by adult farmers in solving farm problems. As shown in Table XXVI, the majority of both groups of farmers obtained from farming associates a moderate to a great extent of information which was used in solving farm problems. Only six per cent of the participants and sixteen

per cent of the non-participators did not obtain information from their associates which would assist them in their farm business. However, the difference was not significant, so the hypothesis was accepted.

TABLE XXVI

EXTENT TO WHICH INFORMATION FROM FARMING ASSOCIATES WAS USED BY ADULT FARMERS IN SOLVING FARM PROBLEMS

Extent used	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	17	34.0	9	18.0
Moderate	21	42.0	22	44.0
Little	9	18.0	11	22.0
No	3	6.0	8	16.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups			4.95	

Data Regarding the Extent Adult Farmers Used Sources Other Than Agricultural Service Agents and Farming Associates in Obtaining Agricultural Information

Some studies have been made in an attempt to ascertain where farmers obtain agricultural information. Other studies have been concerned with the extent successful farmers use particular sources of information in managing their farming businesses. This study includes an inquiry in regard to the extent adult farmers use the following as sources in obtaining agricultural information: (1) radio; (2) television; (3) farm magazines; (4) newspapers; (5) experimental bulletins; and (6) other sources.

Extent to which radio was used by farmers in obtaining agricultural information. In Table XXVII data indicate that non-participators used

TABLE XXVII

EXTENT TO WHICH RADIO WAS USED BY FARMERS IN OBTAINING AGRICULTURAL INFORMATION

Extent used	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	8	16.0	7	14.0
Moderate	13	26.0	20	40.0
Little	21	42.0	19	38.0
No	8	16.0	4	8.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		- 2.98		

the radio as a source of agricultural information only slightly more than the participators. The greatest variation existed between the per cent of farmers who used the radio to a moderate extent. The per cent of participators who did not use the radio doubles that of the non-participators. Even so, the difference between the groups is not significant; therefore, the hypothesis was accepted.

Extent to which television was used by adult farmers in obtaining agricultural information. Data in Table XXVIII show that more of the non-participators used television to a greater extent than did the participators. However, thirty-four per cent of the participators used

television to a moderate extent, whereas only twenty-six per cent of the non-participators used it to this extent. Approximately the same per cent of both groups did not use television as a source of agricultural information. Nevertheless, no significant difference existed between the groups; thus, the hypothesis was accepted.

TABLE XXVIII

EXTENT TO WHICH TELEVISION WAS USED BY ADULT FARMERS IN OBTAINING AGRICULTURAL INFORMATION

Extent used	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	10	20.0	13	26.0
Moderate	17	34.0	13	26.0
Little	13	26.0	15	30.0
No	10	20.0	9	18.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups			- 1.11	

Extent to which farm magazines were used by adult farmers as a source of agricultural information. It is shown in Table XXIX that four per cent more of the non-participators used farm magazines to a greater extent than did the participators. The data also show that six per cent more of the participators used farm magazines to a moderate extent than did the non-participators. Approximately one-fourth of both groups used farm magazines as a source of agricultural information from a little to no extent.

TABLE XXIX

EXTENT TO WHICH FARM MAGAZINES WERE USED BY ADULT FARMERS AS A SOURCE OF AGRICULTURAL INFORMATION

Extent used	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	16	32.0	18	36.0
Moderate	22	44.0	19	38.0
Little	9	18.0	10	20.0
No	3	6.0	3	6.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		.38		

Data presented in Table XXX show that with few exceptions, the participators and non-participators subscribed to the same number of farm magazines. One of the exceptions was that four per cent of the participators subscribed to more than six magazines. Another exception was that all of the participators subscribed to at least one magazine, whereas, six per cent of the non-participators subscribed to no magazines.

There was neither a significant difference between the two groups of farmers in regard to the extent farm magazines were used as a source of agricultural information nor a significant difference between the mean number of farm magazines for which the two groups subscribed. Therefore, the respective null hypotheses were accepted.

TABLE XXX

NUMBER OF FARM MAGAZINES FOR WHICH ADULT FARMERS HAVE SUBSCRIBED

Number of magazines	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
9	1	2.0	0	0.0
8	1	2.0	0	0.0
7	0	0.0	0	0.0
6	4	8.0	3	6.0
5	10	20.0	10	20.0
4	9	18.0	10	20.0
3	13	26.0	10	20.0
2	8	16.0	9	18.0
1	4	8.0	5	10.0
0	0	0.0	3	6.0
Totals	50	100.0	50	100.0
Mean number of magazines for which each adult farmer group subscribed		3.72		3.2
Difference between the mean number of magazines for which the two groups subscribed			.52	
t-value of the difference between the mean number of magazines for which the two groups subscribed			1.53	
Standard deviation of each group		1.71		1.64

Extent to which newspapers were used by adult farmers as a source of agricultural information. As shown in Table XXXI, the greatest

TABLE XXXI

EXTENT TO WHICH NEWSPAPERS WERE USED BY ADULT FARMERS AS A SOURCE OF AGRICULTURAL INFORMATION

Extent used	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	2	4.0	2	4.0
Moderate	14	28.0	16	32.0
Little	28	56.0	20	40.0
No	6	12.0	12	24.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		3.46		

variation between the participating and the non-participating farmers appears in the per cent of individuals who used the newspapers as a source of agricultural information to a little or to no extent. Sixteen per cent more of the participators used, to a little extent, newspapers as a source of information than did the non-participators. Twelve per cent of the non-participators, which was double that of the participators indicated that they used the newspaper to no extent. Because the difference between the groups was not significant, the hypothesis was sustained.

Extent to which experimental bulletins were used by adult farmers as a source of agricultural information. As indicated in Table XXXII,

TABLE XXXII

EXTENT TO WHICH EXPERIMENTAL BULLETINS WERE USED BY ADULT FARMERS AS A SOURCE OF AGRICULTURAL INFORMATION

Extent used	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	8	16.0	1	2.0
Moderate	13	26.0	12	24.0
Little	18	36.0	13	26.0
No	11	22.0	24	48.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups			11.11*	

*Significant at the five per cent level.

there was considerable difference existing between the participators and non-participators in regard to the extent experimental bulletins were used by adult farmers as a source of agricultural information. It is shown that sixteen per cent of the participators used experimental bulletins to a great extent, whereas, only two per cent of the non-participators used them to that extent. One of the greatest differences between the groups appears where approximately half of the non-participators used experimental bulletins to no extent as compared to slightly more than twenty per cent of the participators who did not use experimental bulletins. In that the participators used experimental bulletins

to a greater extent, the difference existing between the groups was significant; thus, the hypothesis was rejected.

Extent to which other sources were used by adult farmers in obtaining agricultural information. Adult farmers used other sources, such as the almanac and books received while in the veteran's agricultural training program, to obtain agricultural information. As may be observed in Table XXXIII, there was no difference in the extent the two groups used other sources of information. The null hypothesis was accepted.

TABLE XXXIII

EXTENT TO WHICH OTHER SOURCES WERE USED BY ADULT FARMERS IN OBTAINING AGRICULTURAL INFORMATION

Extent used	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	0	0.0	0	0.0
Moderate	1	2.0	1	2.0
Little	2	4.0	2	4.0
No	47	94.0	47	94.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		0.00		

Data Regarding the Extent Adult Farmers Participated in Various Organizations

Sociological surveys have provided evidence that there is a tendency for persons to be either extremely active in a number of various organizations or to be relatively inactive. In other words, if one were to draw a probability curve in regard to the extent persons participated in a variety of organizations, the "curve" would be bimodal in nature. An attempt is made in this study to determine if there are significant differences between the farmers who participate in organized instruction in vocational agriculture and those who do not participate in regard to the following: (1) extent of participation in local church; (2) extent of participation in civic organizations; (3) extent of participation in state and national farm organizations; (4) extent of participation in marketing cooperatives; (5) extent of participation in purchasing cooperatives; (6) extent of participation in service cooperatives; and (7) extent of participation in other kinds of organizations.

Extent to which adult farmers participated in local church. Data in Table XXXIV indicate that about an equal per cent of the two groups of farmers were active in their local church to a great extent. It can be observed, however, that ten per cent more of the participators were active to a moderate extent than were the non-participators; however, eight per cent more of the non-participators than participators were active to a little extent. There was no significant difference between the two groups; thus, the hypothesis was accepted.

TABLE XXXIV

EXTENT TO WHICH ADULT FARMERS PARTICIPATED IN LOCAL CHURCH

Extent of participation	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	16	32.0	14	28.0
Moderate	18	36.0	13	26.0
Little	14	28.0	18	36.0
No	2	4.0	5	10.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		2.72		

Extent of participation by adult farmers in civic organizations. Only a small per cent of the adult farmers were active in civic organizations. As shown in Table XXXV, two per cent more of the participators

TABLE XXXV

EXTENT OF PARTICIPATION BY ADULT FARMERS IN CIVIC ORGANIZATIONS

Extent of participation	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	2	4.0	2	4.0
Moderate	3	6.0	2	4.0
Little	3	6.0	2	4.0
No	42	84.0	44	88.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		.44		

than non-participators were active to some extent. Of those in both groups who were active, there was only a slight variation as to the extent they were active. In that no significant difference existed between the two groups, the hypothesis was accepted.

Extent of participation by adult farmers in state and national farm organizations. Those who participated in organized instruction in vocational agriculture tended to be more active in state and national farm organizations than those who did not participate. Data presented in Table XXXVI indicate that the participators consist of slightly more

TABLE XXXVI

EXTENT OF PARTICIPATION BY ADULT FARMERS IN STATE AND NATIONAL FARM ORGANIZATIONS

Extent of participation	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	6	12.0	3	6.0
Moderate	7	14.0	1	2.0
Little	23	46.0	21	42.0
No	14	28.0	25	50.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		8.69*		

*Significant at the five per cent level.

than three times as many who were active at a moderate to great extent in farm organizations as were the non-participators. Presented data also

evidenced the fact that fifty per cent of the non-participators were not active in farm organizations as compared to only twenty-eight per cent of the participators as not active. The difference existing between the groups was significant; consequently, the hypothesis was rejected.

Extent of participation by adult farmers in marketing cooperatives. Although in both groups of farmers only twenty-eight per cent were active in marketing cooperatives, the difference was significant between groups in the extent of activity for those who did participate. It is observed that data presented in Table XXXVII indicate that twenty-six per

TABLE XXXVII

EXTENT OF PARTICIPATION BY ADULT FARMERS IN MARKETING COOPERATIVES

Extent of participation	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	13	26.0	5	10.0
Moderate	1	2.0	8	16.0
Little	0	0.0	1	2.0
No	36	72.0	36	72.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		9.99*		

*Significant at the five per cent level.

cent of the participators, slightly less than three times as many as the non-participators, were active to a great extent in marketing cooperatives. In that the participators were significantly more active than the non-participators, the hypothesis was rejected.

Extent of participation by adult farmers in purchasing cooperatives. Data presented in Table XXXVIII indicate that neither the participators

TABLE XXXVIII

EXTENT OF PARTICIPATION BY ADULT FARMERS IN PURCHASING COOPERATIVES

Extent of participation	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	11	22.0	4	8.0
Moderate	3	6.0	7	14.0
Little	2	4.0	2	4.0
No	34	68.0	37	74.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		4.99		

nor the non-participators were exceptionally active in purchasing cooperatives. However, in regard to the extent of participation, eighteen per cent more of the participators were active to a great extent. Also shown is that eight per cent more of the non-participators than participators were active in purchasing cooperatives to a moderate extent. The difference between the two groups was not significant; therefore, the hypothesis was accepted.

Extent of participation by adult farmers in service cooperatives. Service cooperatives included the Rural Electric Cooperative and similar type organizations. It is shown in Table XXXIX that twenty-eight per

TABLE XXXIX

EXTENT OF PARTICIPATION BY ADULT FARMERS IN SERVICE COOPERATIVES

Extent of participation	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	3	6.0	4	8.0
Moderate	7	14.0	7	14.0
Little	17	34.0	2	4.0
No	23	46.0	37	74.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		5.25		

cent more of the participators were active in service cooperatives than were the non-participators. A noted difference between the groups was that thirty-four per cent of the participators were active to a little extent as compared to the non-participators who had only two per cent active to a little extent. Nevertheless, the hypothesis was accepted in that the difference between the groups was not found to be significant.

Extent of participation by adult farmers in other kinds of organizations. Other kinds of organizations in which adult farmers were active were, for example, Parent-Teachers Association, Masons, and I.O.O.F. Data presented in Table XL show that ten per cent more of the

TABLE XL

EXTENT OF PARTICIPATION BY ADULT FARMERS IN OTHER KINDS OF ORGANIZATIONS

Extent of participation	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Great	4	8.0	3	6.0
Moderate	2	4.0	6	12.0
Little	4	8.0	6	12.0
No	40	80.0	35	70.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		- 2.87		

non-participators were active in the various organizations than were the participators. An observable variation between the groups appears at the moderate and little extent levels of activity. It was found that the non-participators had twice as many active at the moderate and little extent levels, inclusive, as did the participators. However, the difference between the groups was not significant; therefore, the hypothesis was accepted.

Data Regarding the Attitude of Adult Farmers Toward the Local Public Schools

Data regarding the attitudes of adult farmers toward the local public school include attitudes toward: (1) the board of education; (2) the superintendent of schools; (3) the principal; (4) the academic teachers;

(5) the vocational teachers; (6) vocational agriculture as a means of teaching boys to farm; and (7) vocational agriculture as a service to farm people.

Attitude of adult farmers toward the local board of education. The attitude displayed toward the local board of education by adult farmers, as indicated in Table XLI, shows no significant difference

TABLE XLI

ATTITUDE OF ADULT FARMERS TOWARD THE LOCAL BOARD OF EDUCATION

Attitude	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Positive	39	78.0	35	70.0
Neutral	7	14.0	10	20.0
Negative	4	8.0	5	10.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		.85		

between the participators and the non-participators. Only eight per cent more of the participators than the non-participators expressed a positive attitude toward the school board. Six per cent more of the non-participators than the participators expressed a neutral attitude. Even though the observed differences indicate that participators showed a slightly more positive attitude toward the school board than did the non-participators, the difference was not found to be significant; thus, the hypothesis was accepted.

Attitude of adult farmers toward local superintendent of schools. As shown in Table XLII, approximately three-fourths of both participators

TABLE XLII

ATTITUDE OF ADULT FARMERS TOWARD LOCAL SUPERINTENDENT OF SCHOOLS

Attitude	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Positive	37	74.0	36	72.0
Neutral	8	16.0	9	18.0
Negative	5	10.0	5	10.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups			.07	

and non-participators expressed a positive attitude toward the superintendent of schools. Ten per cent of each group had a negative attitude toward the superintendent. Since the difference between the groups was not significant, the hypothesis was accepted.

Attitude of adult farmers toward principal of local high school. The adult farmer's attitude toward the principal of the high school was similar to that expressed toward the superintendent (see Table XLII). As shown in Table XLIII, approximately three-fourths of both groups expressed a positive attitude toward the principal. In the expression of a neutral attitude, both groups were about equal. Slightly more of the participators expressed a negative attitude toward the principal than did the non-participators. In that the difference was insignificant, the hypothesis was accepted.

TABLE XLIII

ATTITUDE OF ADULT FARMERS TOWARD PRINCIPAL OF LOCAL HIGH SCHOOL

Attitude	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Positive	37	74.0	38	76.0
Neutral	9	18.0	10	20.0
Negative	4	8.0	2	4.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		- .73		

Attitude of adult farmers toward academic teachers of local high school. Data presented in Table XLIV show that ten per cent more of the

TABLE XLIV

ATTITUDE OF ADULT FARMERS TOWARD ACADEMIC TEACHERS OF LOCAL HIGH SCHOOL

Attitude	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Positive	44	88.0	39	78.0
Neutral	5	10.0	8	16.0
Negative	1	2.0	3	6.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		1.99		

participators than of the non-participators expressed a positive attitude toward the academic teachers. It may also be observed in the table that only two per cent of the participators had a negative attitude toward the teachers, whereas, six per cent of the non-participators had this attitude. As the difference which existed was not significant, the hypothesis was accepted.

Attitude of adult farmers toward vocational teachers of the local high school. Twelve per cent more of the participators than non-participators indicated a positive attitude toward the vocational teachers. As shown in Table XLV, ninety-two per cent of the participators expressed a

TABLE XLV

ATTITUDE OF ADULT FARMERS TOWARD VOCATIONAL TEACHERS OF THE LOCAL HIGH SCHOOL

Attitude	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Positive	46	92.0	40	80.0
Neutral	3	6.0	8	16.0
Negative	1	2.0	2	4.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		3.02		

positive attitude as compared to eighty per cent of the non-participators who expressed this attitude. Ten per cent more non-participators than participators expressed a neutral attitude. Although a difference

between the two groups may seem to exist, it was insignificant. The hypothesis was accepted.

Attitude of adult farmers toward vocational agriculture as a means of teaching boys to farm. Readily observed in Table XLVI is that

TABLE XLVI

ATTITUDE OF ADULT FARMERS TOWARD VOCATIONAL AGRICULTURE AS A MEANS OF TEACHING BOYS TO FARM

Attitude	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Positive	48	96.0	39	78.0
Neutral	1	2.0	10	20.0
Negative	1	2.0	1	2.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		8.29*		

*Significant at the five per cent level.

participators in organized instruction in vocational agriculture had a more positive attitude toward vocational agriculture as a means of teaching boys to farm than did those who did not participate. Ninety-six per cent of the participators, as compared to seventy-eight per cent of the non-participators, expressed a positive attitude toward the program. Twenty per cent of the non-participators expressed a neutral attitude. In both groups, only two per cent expressed a negative attitude. The difference between the two groups was significant; consequently, the hypothesis was rejected.

Attitude of adult farmers toward vocational agriculture as a service to farm people. The attitude of the adult participators toward vocational agriculture as a service to farm people is similar to that expressed toward the program as a means of teaching boys to farm (see Table XLVI). Data presented in Table XLVII indicate that twenty-six

TABLE XLVII

ATTITUDE OF ADULT FARMERS TOWARD VOCATIONAL AGRICULTURE AS A SERVICE TO FARM PEOPLE

Attitude	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Positive	47	94.0	34	68.0
Neutral	1	2.0	14	28.0
Negative	2	4.0	2	4.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups			13.35**	

**Significant at the one per cent level.

per cent more of the participators showed a positive attitude toward the program than did the non-participators. Of the total non-participators, twenty-eight per cent expressed a neutral attitude. Four per cent of the two groups displayed a negative attitude toward the program. Since the difference which existed between the groups was significant, the hypothesis was rejected.

Data Regarding the Degree Adult Farmers Were Acquainted With the Local Program of Vocational Agriculture

Many investigators who have made studies pertaining to adult farmer participation in organized instruction in vocational agriculture have concluded that one of the primary reasons for the lack of participation of some farmers in the program was the lack of knowledge of and acquaintanceship with the nature and extent of the instruction offered. Included in this study are data pertaining to the degree adult farmers were acquainted with: (1) local vocational agriculture teacher; (2) local vocational agriculture high school program; and (3) local program of adult farmer instruction.

Degree adult farmers were acquainted with local vocational agriculture teacher. Data in Table XLVIII show that all of the adult farmer

TABLE XLVIII

DEGREE ADULT FARMERS WERE ACQUAINTED WITH LOCAL VOCATIONAL AGRICULTURE TEACHER

Degree	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Well-acquainted	49	98.0	32	64.0
Acquainted	1	2.0	9	18.0
Not acquainted	0	0.0	9	18.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		18.96**		

**Significant at the one per cent level.

participators were acquainted with the local vocational agriculture teacher. Only two per cent of the participators were less than well-acquainted with the teacher. On the other hand, only sixty-four per cent of the non-participators expressed that they were well-acquainted with the local teacher. Eighteen per cent of the non-participators stated that they were just acquainted with him and an equal per cent stated that they were not personally acquainted with the teacher of vocational agriculture.

Closely associated with the degree of acquaintanceship was the number of farmers with whom the vocational agriculture teacher had visited. As shown in Table XLIX, all of the participators stated that the vocational agriculture teacher had visited on their farms at least one time in the last twelve months, whereas, only forty-four per cent of the non-participators had been visited. Seventy-two per cent of the participators were visited more than two times during the year by the vocational agriculture teacher, compared to his making more than two visits to only twenty-two per cent of the non-participators.

A highly significant difference existed in regard to the degree adult farmers were acquainted with the local vocational agriculture teacher and in regard to the mean number of visits made by the teacher to the farms of the two groups of farmers. Therefore, the hypotheses were rejected.

TABLE XLIX

FREQUENCY DISTRIBUTION OF NUMBER OF VISITS MADE BY LOCAL VOCATIONAL AGRICULTURE TEACHER TO FARMS OF ADULT FARMERS

Class interval, number of visitations	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
25 - 26	1	2.0	0	0.0
23 - 24	1	2.0	0	0.0
21 - 22	0	0.0	0	0.0
19 - 20	0	0.0	2	4.0
17 - 18	2	4.0	0	0.0
15 - 16	0	0.0	1	2.0
13 - 14	0	0.0	0	0.0
11 - 12	7	14.0	1	2.0
9 - 10	3	6.0	0	0.0
7 - 8	0	0.0	2	4.0
5 - 6	9	18.0	2	4.0
3 - 4	13	26.0	3	6.0
1 - 2	14	28.0	11	22.0
0	0	0.0	28	56.0
Totals	50	100.0	50	100.0
Mean number of visits made to each adult farmer group		6.38		2.3
Difference between the mean number of visits made to the two groups			4.08	
t-value of difference between the mean number of visits made to the two groups			3.80**	
Standard deviation of each group		5.81		4.76

**Significant at the one per cent level.

Degree of acquaintance by adult farmers with local vocational agriculture program. Data presented in Table L show that participators

TABLE L

DEGREE OF ACQUAINTANCE BY ADULT FARMERS WITH LOCAL VOCATIONAL AGRICULTURE PROGRAM

Degree	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Well-acquainted	47	94.0	27	54.0
Acquainted	2	4.0	10	20.0
Not acquainted	1	2.0	13	26.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		21.02**		

**Significant at the one per cent level.

in the adult farmer instructional program are much more familiar with the functions of the local vocational agriculture program than those farmers who did not participate. Ninety-four per cent of the participators were well-acquainted with the overall program as compared to fifty-four per cent of non-participators who were well-acquainted. Only two per cent of the participators expressed themselves as not acquainted with the program, whereas, twenty-six per cent of the non-participators were not acquainted. The difference existing between the groups was highly significant; thus, the hypothesis was rejected.

Degree of acquaintance by adult farmers with the local vocational agriculture program of adult farmer instruction. There was a highly significant difference between the degree with which the participating and the non-participating farmers were acquainted with the local vocational agriculture program of adult farmer instruction. As shown in Table LI, eighty-six per cent of the participators considered themselves

TABLE LI

DEGREE OF ACQUAINTANCE BY ADULT FARMERS WITH THE LOCAL VOCATIONAL AGRICULTURE PROGRAM OF ADULT FARMER INSTRUCTION

Degree	Participators		Non-Participators	
	Number	Per cent	Number	Per cent
Well-acquainted	43	86.0	20	40.0
Acquainted	7	14.0	15	30.0
Not acquainted	0	0.0	15	30.0
Totals	50	100.0	50	100.0
Chi-square value of the degree of association between groups		26.30**		

**Significant at the one per cent level.

well-acquainted with the program and only forty per cent of the non-participators were well-acquainted with the instructional offerings. The remaining fourteen per cent of the participators were only acquainted with the instructional program and half of the remaining sixty per cent of non-participators expressed that they were only acquainted with the program. Thirty per cent of the non-participators were not acquainted

with the program and had no knowledge of the instructions being offered. Since a significantly greater per cent of the participators were acquainted with the program, the hypothesis was rejected.

Reasons expressed by farmers in regard to their participation in adult study groups. Data in Table LII show that the majority of the

TABLE LII

REASONS EXPRESSED BY ADULT FARMERS IN REGARD TO THEIR PARTICIPATION IN ADULT STUDY GROUPS

Reasons expressed	Primary Reasons		Secondary Reasons	
	Number	Per cent	Number	Per cent
Value of study group in meeting personal needs	40	80.0	8	16.0
Encouraged by teacher of vocational agriculture	7	14.0	35	70.0
Neighbor's opinion	2	4.0	4	8.0
Encouraged by son	1	2.0	3	6.0
Totals	50	100.0	50	100.0

farmers who participated in adult study groups stated that their primary reason for participating was the value of the study groups in meeting personal needs. Encouragement from the teacher of vocational agriculture was given as the primary reason for participating by fourteen per cent of the respondents. A small per cent gave neighbor's opinion and encouragement from son as their primary reason for their attendance.

When requested to give a secondary reason for participating, seventy per cent responded that they were encouraged by the teacher of vocational agriculture. Sixteen per cent gave value of study group in personal needs as secondary reasons for participating. Neighbor's opinion and encouragement from son were also secondary reasons for participating.

Reasons expressed by adult farmers in regard to their non-participation in adult study groups. According to the data presented in Table LIII, the primary reason for not participating in adult study

TABLE LIII

REASONS EXPRESSED BY ADULT FARMERS IN REGARD TO THEIR NON-PARTICIPATION IN ADULT STUDY GROUPS

Reasons expressed	Primary Reasons		Secondary Reasons	
	Number	Per cent	Number	Per cent
Study group did not meet personal needs	20	40.0	10	20.0
Not informed	15	30.0	0	0.0
Lack of time	6	12.0	6	12.0
Schedule of meetings	3	6.0	5	10.0
Poor health	3	6.0	1	2.0
Advanced age	2	4.0	0	0.0
Television	1	2.0	5	10.0
Totals	50	100.0	27	54.0

groups expressed by forty per cent of the respondents was that the study group did not meet personal needs. Thirty per cent of the non-participators

stated that they were uninformed about the instructional group meetings. It is also observed that twelve per cent of the non-participators stated that they did not have the time. Poor health and advanced age were given by ten per cent of the non-participants as reasons for not being active in the study groups.

Forty-six per cent of the non-participants stated that they had no secondary reason for not taking part in the group instruction. Of those expressing secondary reasons, many of them stated that the study group did not meet their needs. Preferring to stay home and watch television was a reason for ten per cent not attending the study group meetings.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Problem of the Study

The principal problem of this study was to ascertain if significant differences exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate with regard to certain specific personal characteristics and socio-economic conditions.

The object of the study was to discover if there were certain selected factors which may be associated with the participation or non-participation of adult farmers in organized instruction being offered by the local teacher of vocational agriculture.

Methods and Procedure of the Study

The study was structured to test a number of null hypotheses pertaining to the existence of significant differences between a group of adult farmers who participate in organized instruction in vocational agriculture and a group who do not participate in regard to certain personal characteristics and socio-economic statuses.

The null hypotheses tested to provide evidence which might substantiate their acceptance were that with regard to certain specific

personal characteristics and socio-economic conditions, significant differences do not exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate.

The method of collecting the data was through a personal interview with each of 100 farmers randomly selected from over the State of Oklahoma. The 100 farmers consisted of fifty who participated in organized instruction in vocational agriculture and fifty who did not participate.

The population centers from which the randomly chosen farmers were drawn consisted of ten communities in which the vocational agriculture departments were offering an organized program of instruction to adult farmers. The ten communities used in this study were randomly drawn by sampling the vocational agriculture departments in Oklahoma which were offering systematic instruction in vocational agriculture to adult farmers.

To assure a geographical distribution over the State of Oklahoma, the vocational agriculture departments offering systematic instruction were stratified into their respective supervisory areas of vocational agriculture which constitute five districts. Two departments were randomly chosen from each of the five districts.

Within each of the ten communities, which were selected by taking a sample of vocational agriculture departments, all farm operators who were beyond the age of twenty-one and who derived at least twenty-five per cent of their income from being actively engaged in farming were identified. All the farmers identified were divided into two groups.

One group participated in organized instruction in vocational agriculture, the other group did not participate. Each of the two groups was considered as a population. From each of the two population groups, five farmers were randomly chosen. The five farmers selected from the population group that participated in organized instruction in vocational agriculture in each community were collated into a composite group of fifty referred to as the "participators." The five farmers selected from the population group that did not participate in organized instruction in vocational agriculture in each community were collated into a composite group of fifty referred to as "non-participators."

The schedule used to interview each of the 100 farmers was specifically structured to obtain data which was needed to test the stated hypotheses of this study. The criteria used in the development of the interview schedule were taken from other studies similar in nature, which had established them as valid, from persons who had made similar studies, and from a panel of eleven farmers who were called together for the purpose of further clarifying the criteria proposed.

Summary of Findings in Regard to Hypotheses Tested

After the data were obtained and tabulated, statistical treatments were made to test the stated null hypotheses. Some of the hypotheses were sustained and some were refuted.

Hypotheses regarding personal characteristics. Eight of the nine null hypotheses regarding the personal characteristics of the farmers were accepted. It was ascertained that between groups of adult farmers who participate in organized instruction in vocational agriculture and

those who do not participate, significant differences do not exist in regard to:

(1) ages of the two groups of farmers,

(2) years of formal education completed,

(3) number who were enrolled in vocational agriculture while attending high school,

(4) number who have participated in Institutional On-Farm Training,

(5) marital status,

(6) number of children living at home,

(7) ages of children living at home, and

(8) number of adult farmers whose sons have taken vocational agriculture in high school.

Pertaining to the hypothesis rejected, it was determined that between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate, significant differences do exist in regard to the number whose sons are currently enrolled in vocational agriculture in high school. This investigation established that of those farmers who participate in organized instruction, a greater number have sons who are currently enrolled in vocational agriculture than those farmers who do not participate in organized instruction.

Hypotheses regarding economic conditions. Of the eleven hypotheses tested regarding the economic conditions, seven were considered acceptable. It was found that between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate, significant differences do not exist in regard to:

(1) months out of year adult farmers are employed in non-farm work,

(2) months out of year adult farmers are employed in farm work off own farm,

(3) total acres of land operated by adult farmers,

(4) current investment of adult farmers in land and buildings,

(5) current investment of adult farmers in livestock,

(6) primary sources of capital used by adult farmers in becoming established in farming, and

(7) secondary sources of capital used by adult farmers in becoming established in farming.

Four of the hypotheses pertaining to the economic conditions of farmers were rejected. It was ascertained that between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate, significant differences do exist in regard to:

(1) per cent of income received by adult farmers from non-farm work,

(2) acres of land rented by adult farmers,

(3) acres of land owned by adult farmers, and

(4) current investment of adult farmers in machinery.

This study provides evidence that the non-participators (1) receive a greater per cent of income from non-farm work than the participators, and (2) own a greater number of acres of land than the participators. This investigation also establishes that the participators (1) rent more land than the non-participators, and (2) have more money invested in machinery than the non-participators.

Hypotheses regarding the extent to which adult farmers use various sources in obtaining technical agricultural assistance and information. Seven hypotheses were formulated regarding the extent to which adult

farmers use various sources in obtaining technical agricultural assistance and information. With the exception of three factors, the hypotheses were accepted. It was determined that between groups of adult farmers who participate in organized instruction and those who do not participate, significant differences do not exist regarding the extent the farmers use the services of:

(1) the Soil Conservation personnel in solving farm problems,

(2) the county agent in solving farm problems,

(3) other agencies in solving farm problems, and

(4) farming associates in solving farm problems.

In regard to the three hypotheses rejected, it was ascertained that between groups of adult farmers who participate in organized instruction and those who do not participate, significant differences exist regarding the extent the farmers use the services of:

(1) the Agricultural Stabilization and Conservation personnel,

(2) the local vocational agriculture teacher, and

(3) commercial agents.

This study definitely establishes that the participators in organized instruction in vocational agriculture use the services of: (1) the Agricultural Stabilization and Conservation personnel; (2) the local vocational agriculture teacher; and (3) commercial agencies to a greater extent than do non-participators.

Hypotheses regarding the extent to which adult farmers use sources other than agricultural service agents and farming associates in obtaining agricultural information. Six hypotheses were tested regarding the extent to which adult farmers use sources other than agricultural agents

and farming associates in obtaining agricultural information. Evidence was obtained which sustained five of the hypotheses. In regard to the hypothesis rejected, it was found that between groups of adult farmers who participate in organized instruction and those who do not participate, a significant difference exists regarding the extent to which the farmers use experimental bulletins as a source of agricultural information. It was found in this study that participators in organized instruction in vocational agriculture tend to use experimental bulletins to a greater extent than do non-participators.

Of the five hypotheses accepted, it was determined that between groups of adult farmers who participate in organized instruction and those who do not participate, significant differences do not exist regarding the extent to which farmers use the following sources of agricultural information: (1) radio; (2) television; (3) farm magazines; (4) newspapers; and (5) other sources.

Hypotheses regarding the extent to which adult farmers participate in various organizations. Regarding the extent to which adult farmers participate in various organizations, seven hypotheses were tested. Five of the hypotheses were accepted. It was ascertained that between groups of adult farmers who participate in organized instruction and those who do not participate, significant differences do not exist pertaining to the extent to which adult farmers participate in: (1) local church; (2) civic organizations; (3) purchasing cooperatives; (4) service cooperatives; and (5) other kinds of organizations. In regard to the two hypotheses which were rejected, it was found that between groups of farmers who participate in organized instruction in vocational agriculture

and those who do not participate, significant differences do exist pertaining to the extent adult farmers participate in (1) state and national farm organizations, and (2) marketing cooperatives.

It was definitely established in this study that those farmers who participate in organized instruction in vocational agriculture also participate to a greater extent in state and national farm organizations and marketing cooperatives.

Hypotheses regarding the attitude of adult farmers toward the local public schools. Of the seven hypotheses formulated which pertain to the attitude of adult farmers toward the local public school, two were rejected. It was determined that between groups of farmers who participate and those who do not participate in organized instruction in vocational agriculture, significant differences do exist regarding their attitude toward:

(1) vocational agriculture as a means of teaching boys to farm, and

(2) vocational agriculture as a service to farm people.

It was definitely established by this study that the participators in organized instruction in vocational agriculture have a much more positive attitude toward the vocational agriculture program than those who do not participate.

In regard to the five hypotheses accepted, it was found that significant differences do not exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate pertaining to their attitude toward:

(1) the local board of education,

(2) the local superintendent of schools,

(3) the principal of the local high school,

(4) the academic teachers of the local high school, and

(5) the vocational teachers of the local high school.

Hypotheses regarding the degree adult farmers were acquainted with the local program of vocational agriculture. Four hypotheses were tested regarding the degree adult farmers were acquainted with the local program of vocational agriculture. All four of the hypotheses can not be accepted. It was ascertained that significant differences do exist between groups of farmers who participate in organized instruction in vocational agriculture and those who do not participate pertaining to the degree they are acquainted with:

(1) the local vocational agriculture teacher,

(2) the local vocational agriculture program in high school, and

(3) the local program of adult farmer instruction.

The fourth hypothesis tested was in regard to the number of visits the teacher of vocational agriculture made to the farms of the participating and the non-participating farmers. A significantly greater mean number of visits are made by the teacher to the farms of the participators than to the farms of the non-participators.

Evidence clearly indicates that the participating farmers in organized instruction in vocational agriculture are much more acquainted with the local program of vocational agriculture than those who do not participate.

Reasons expressed by farmers in regard to their participation or non-participation in adult study groups. The majority of the farmers who participated in adult study groups stated that their primary

reason for participating was the value of the study group in meeting their personal needs. On the other hand, of those who did not participate in the study groups, forty per cent stated that the instructional offerings did not meet their personal needs. Another reason which many farmers gave for not attending the group meetings was they were not aware of the instructional program.

Seventy per cent of the participating farmers indicated that encouragement from the local teacher of vocational agriculture was a secondary reason for being active in the group instruction. Neighbor's opinion and encouragement from son were other secondary reasons given by farmers who participated.

Conclusions Reached in Regard to Hypotheses Tested

Since eight of the nine hypotheses tested regarding personal characteristics of the farmers were accepted, the conclusions can be reached that age, years of formal education, vocational agriculture education background, marital status, number and age of children living at home, and number of sons who had vocational agriculture in high school are not factors associated with the participation or non-participation of adult farmers in organized instruction in vocational agriculture. However, it may be concluded that having sons currently enrolled in vocational agriculture is a factor associated with the participation of the farmers in the instructional program.

With regard to economic conditions, it may be concluded that the number of months out of the year adult farmers are employed in non-farm work, the number of months out of the year adult farmers are employed

in farm work off own farm, total acres of land operated, current investment in land and buildings, current investment in livestock, and primary and secondary sources of capital used in becoming established in farming are not factors associated with the participation of adult farmers in organized instruction in vocational agriculture.

It may be further concluded that in regard to economic conditions, the tendency for the participators to receive a greater per cent of their income from the farm, to rent more land, and to have more capital invested in machinery are factors associated with their participation in adult study groups.)

One hypothesis tested ascertained that the non-participators own a significantly greater amount of land than participators. The study bears out the fact that this factor is greatly conditioned by other characteristics of the non-participators; therefore, it may not be acceptable to assume specific association with the participation or non-participation of farmers in adult study groups.

With three exceptions, the extent to which adult farmers use various services in obtaining technical agricultural assistance cannot be associated with the participation of adult farmers in organized instruction in vocational agriculture. Although the participators use the Agricultural Stabilization and Conservation Service and commercial agencies to a greater extent than the non-participators, other factors in the study have conditioned the use of these agencies to the extent that conclusions cannot be definitely drawn that they are factors which one may associate with the participation of adult farmers in adult study groups. It can be concluded, however, that the extent to which services

of the teacher of vocational agriculture are used is a factor associated with adult farmer participation.

According to the findings of this study, the extent adult farmers use the radio, television, farm magazines, newspapers, and other kinds of sources are not factors which may be associated with the participation of farmers in adult study groups. However, it may be concluded that the extent adult farmers use experimental bulletins is a factor associated with their participation in organized instruction in vocational agriculture.

Further conclusions which may be reached are that the extent adult farmers are active in church, civic organizations, purchasing cooperatives, and other kinds of organizations are not factors which discern participators in organized instruction in vocational agriculture from those who do not participate. There is ample evidence to conclude, however, that the extent farmers participate in state and national farm organizations and the extent farmers participate in marketing cooperatives are factors associated with their participation in adult study groups.

Regarding the attitudes of adult farmers toward the local public school, there is substantial evidence that attitudes toward the board of education, the superintendent of schools, the principal, the academic teachers, and the vocational teachers are not factors which may distinguish adult participators in organized instruction in vocational agriculture from those who do not participate. Positive associations do exist between the participation of adult farmers in organized instruction and their attitudes toward vocational agriculture as a means of teaching

boys to farm and their attitudes toward vocational agriculture as a service to farm people.

Conclusions can be reached that the degree adult farmers are acquainted with the local vocational agriculture teacher, the local vocational agriculture high school program, and the local program of adult farmer instruction are factors associated with their participation in adult study groups. A factor also closely associated with the participation of farmers in adult study groups is the number of visits made by the teacher of vocational agriculture to their farms.

Reasons given by farmers in regard to the participation in organized instruction in vocational agriculture tend to substantiate some of the factors which were established in this study as being associated with their participation or non-participation. Conclusions can be drawn that the vocational agriculture teacher has much influence on whether farmers participate. The diversity of instruction offered, the extent of personal encouragement to participate, and means of notifying farmers of the program by the teacher of vocational agriculture are decisive factors associated with participation or non-participation of adult farmers in organized instruction.

Pertaining to the selected hypotheses subjected to test, thirty-four of the fifty-one hypotheses tested provide evidence that in regard to certain specific personal characteristics and socio-economic conditions, significant differences do not exist between groups of adult farmers who participate in organized instruction in vocational agriculture and those who do not participate.

Implications of the Study

Although this study was not undertaken to establish a cause and effect relationship in regard to certain factors associated with the participation of adult farmers in organized instruction in vocational agriculture, particular inferences may be drawn from the data obtained which would strongly indicate that certain conditions are more conducive than others for the occurrence of adult farmer participation. Many factors which have been found to be not associated with the participation of adult farmers in the instructional program also have important implications in regard to the development of successful programs of organized instruction.

Inferences drawn from the results of this investigation indicate that certain personal characteristics of farmers such as age, formal education, previous educational experiences in agriculture, marital status, number and ages of children living at home, and having sons who have had vocational agriculture in high school are not associated with the participation or non-participation of farmers in adult instruction. However, the current enrollment of sons in vocational agriculture is suggested as a factor which may encourage the participation of adult farmers in adult study groups.

In regard to certain economic conditions, the results of this study strongly suggest that part-time farmers are an important group to consider when one plans adult education programs. It seems that those part-time farmers who receive a relatively large per cent of their net income from farming are more interested in the instructional program than those who receive a relatively large per cent of their income from non-farm employment.

The results of the investigation show that renter-operators and owner-operators participate in organized instruction to about the same extent. An explanation as to the reason the participators rented more land than the non-participators may be that since the non-participators received a significantly greater per cent of their income from non-farm work, they did not find it feasible to expand their operations beyond the land they owned. Since the non-participators owned more land and possessed less machinery than the participators, it may be inferred that the non-participators were engaged in more grassland farming. This inference may be substantiated in that the non-participators did not obtain assistance from the Agricultural Stabilization and Conservation Service to the extent that the participators did. Because the A.S.C.S. is instrumental in the acreage control of certain grain, fiber, and oil crops, it may be inferred that the participators were engaged in crop farming to a greater extent than the non-participators.

Although the non-participators owned more land, the current investment in land and buildings was not significantly different from that of the participators; thus, the inference that non-participators were more inclined to operate less expensive grassland is further strengthened. The insignificant difference between the participators and the non-participators in the amount of capital invested in livestock seems to refute the inference drawn that the non-participators were engaged to a greater extent in grassland farming than the participators. In the course of the interviews and from observations, the investigator found a possible explanation for the lack of differences in the amount of capital invested in livestock. Many of the part-time farmers who did not participate in organized instruction in vocational agriculture received a significantly

greater per cent of their net income from non-farm work than those who did participate. Being restricted in their activities of farming, the non-participating part-time farmers invested money in grassland rather than cropland. Because their available capital was invested in land, their lack of finances restricted the expedient stocking of their pastures. Also many of the grassland farmers were forced to liquidate their livestock during the drought because of the lack of supplementary grain crops to sustain them. Subsequent higher cattle prices also prevented the stocking of the grassland.

Since the non-participators owned more land, and yet obtained a greater per cent of their net income from non-farm work than the participators, there are implications that teachers of vocational agriculture are not providing an instructional program to assist this group in solving their particular farming problems. The reason given by many of the non-participators, that the instructional program did not meet their needs, tends to support the implication that some of the adult farmer instructional programs are restricted in the diversity of offerings.

This investigation, in agreement with other studies, tends to bear out the fact that farmers who participate in organized instruction in vocational agriculture are generally more inclined to be active in state and national farm organizations than farmers who do not participate. This study also indicates that farmers who participate in adult study groups tend to participate in cooperative activities and are interested in improving themselves professionally through the use of experimental research bulletins.

As may be expected, this investigation strongly implies that the nature and extent of the services of the teacher of vocational

agriculture are closely associated with the participation of farmers in the instructional program. Also, there is sufficient evidence that farm visitations of the teacher not only influence farmers to participate in the instructional program, but also condition farmers' attitudes favorably toward the vocational agricultural program as a means of teaching boys to farm and as an educational service to farm people.

In summary, it may be inferred from the results of this study that with few exceptions, the successful programs of organized instruction in vocational agriculture are meeting the needs of a cross-sectional group of farmers in the communities. This is particularly evident when one observes that there is no significant difference between the two groups of farmers in regard to most of the factors pertaining to personal characteristics. Furthermore, the findings of this investigation strongly imply that the extent of adult farmer participation in an educational program depends primarily upon the initiative, interest, and confidence of the local teacher of vocational agriculture. This implication is strongly substantiated in that of the seventeen hypotheses which, upon testing, indicated a significant difference between the two groups of farmers, seven were directly concerned with the teacher and his program. By becoming personally acquainted with the farmers, ascertaining their personal characteristics as well as their socio-economic conditions, and then providing a diversity of educational opportunities based upon these factors, the teacher of vocational agriculture will not only enhance his adult educational program, but he will also perpetuate a more favorable attitude toward the total vocational agriculture program among adult farmers of his community.

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APPENDIXES

APPENDIX A

FACTORS ASSOCIATED WITH THE PARTICIPATION OF ADULT FARMERS IN ORGANIZED INSTRUCTION IN VOCATIONAL AGRICULTURE

Interview Schedule

I. PERSONAL CHARACTERISTICS:

Name _____

1. Age _____
2. Marital Status _____
3. Number of children at home _____
4. Ages of children ( ) ( ) ( ) ( ) ( )
5. Education (highest grade attained) _____
6. Years of vocational agriculture completed in high school _____
7. Months completed in IOFT _____
8. Sons presently taking vocational agriculture _____
9. Sons who have taken vocational agriculture _____

II. OCCUPATIONAL STATUS:

1. Present farming program arrangement:

   a. Partner in farm business _____
   b. Renter and operator of a farm _____ Acres _____
   c. Owner and operator of a farm _____ Acres _____
   d. Manager of a farm for another party _____
   e. Other _____

2. Days employed off of own farm in the last twelve months in non-farm work _____

3. Days employed off the farm in the last twelve months in farm work _____

4. Per cent of income from non-farm work _____

5. Value of present investment in land, including buildings _____

6. Value of present investment in livestock _____

7. Value of present investment in farm machinery and equipment _____

8. Acquisition of major portion of capital for farming investment and operations

   a. Income from farming _____
   b. Income from off the farm _____

c. Gifts or inheritance_____
d. Loans _____
e. Other _____

III. SOURCES FROM WHICH ASSISTANCE AND INFORMATION ARE OBTAINED:

1. Technical assistance in solving farm problems:

	Great Extent	Moderate Extent	Little Extent	No Extent
a. Soil Conservation Service	_____	_____	_____	_____
b. Agricultural Stabilization Conservation Service	_____	_____	_____	_____
c. County agent	_____	_____	_____	_____
d. Vo. Ag. teacher	_____	_____	_____	_____
e. Commercial agencies	_____	_____	_____	_____
f. Fellow farmers	_____	_____	_____	_____
g. Others	_____	_____	_____	_____

2. Obtain agricultural information from sources other than service agencies:

	Great Extent	Moderate Extent	Little Extent	No Extent
a. Radio	_____	_____	_____	_____
b. T.V.	_____	_____	_____	_____
c. Farm magazines (No.____)	_____	_____	_____	_____
d. Newspaper	_____	_____	_____	_____
e. Bulletins	_____	_____	_____	_____
f. Others	_____	_____	_____	_____

IV. MEMBERSHIP AND PARTICIPATION IN ORGANIZATIONS:

	Great Extent	Moderate Extent	Little Extent	No Extent
1. Religious and civic:				
a. Local church	_____	_____	_____	_____
b. Civic organizations	_____	_____	_____	_____
2. Farm organizations:				
a. National Grange	_____	_____	_____	_____
b. Farmers' Union	_____	_____	_____	_____
c. American Farm Bureau Fedr.	_____	_____	_____	_____
d. Other	_____	_____	_____	_____

	Great Extent	Moderate Extent	Little Extent	No Extent
3. Cooperative organizations:				
a. Marketing Cooperative	_____	_____	_____	_____
b. Purchasing Cooperative	_____	_____	_____	_____
c. Service Cooperative	_____	_____	_____	_____
4. Others not related to those mentioned above	_____	_____	_____	_____

V. ATTITUDE TOWARD PUBLIC SCHOOLS:

	Positive	Neutral	Negative
1. Administration:			
a. School Board	_____	_____	_____
b. Superintendent	_____	_____	_____
c. Principal	_____	_____	_____
2. Faculty:			
a. Academic teachers	_____	_____	_____
b. Vocational teachers	_____	_____	_____
3. Vocational Agriculture Department:			
a. Service for training boys to farm	_____	_____	_____
b. Service to farm people	_____	_____	_____

VI. DEGREE OF ACQUAINTANCE WITH VOCATIONAL AGRICULTURE:

	Well Acquainted	Acquainted	Not Acquainted
1. Local Vo. Ag. teacher	_____	_____	_____
2. Local Vo. Ag. program	_____	_____	_____
3. Local adult farmer instructional program	_____	_____	_____

4. Number of times vocational agriculture teacher visited your farm in the last twelve months _____

VII. FACTORS INFLUENCING THE PARTICIPATION OF FARMERS IN ORGANIZED INSTRUCTION IN VOCATIONAL AGRICULTURE:

Influencing Factors	Influenced Not to Attend	Influenced To Attend
1. Value of the study group in meeting personal needs	_____	_____

Influencing Factors	Influenced Not to Attend	Influenced To Attend
2. Distance to center	(__mi.)_____	(__mi.)___
3. Neighbor's opinion	_____	_____
4. Vocational agriculture teacher	_____	_____
5. Method of conducting classes	_____	_____
6. Schedule of classes	_____	_____
7. Family influence	_____	_____
8. Method of notification of meetings	_____	_____
9. Enrollment fee	_____	_____
10. Television	_____	_____
11. Other	_____	_____

APPENDIX B

TEACHERS COOPERATING IN STUDY

Teacher	School
Mr. Otto Legg	Beaver
Mr. Richard Lowe	Beggs
Mr. Leslie Miller	Indianola
Mr. Darius Mitchell	Inola
Mr. Wesley Hobbs	Ninnekah
Mr. Everett Chaffin	Perry
Mr. Robert Mitchell	Ripley
Mr. Euel Renfrow	Stigler
Mr. Herman Grizzle	Tipton
Mr. Harry Frank	Tryon

VITA

Clyde Raymond Kindell

Candidate for the Degree of

Doctor of Education

Thesis: FACTORS ASSOCIATED WITH THE PARTICIPATION OF ADULT FARMERS IN ORGANIZED INSTRUCTION IN VOCATIONAL AGRICULTURE

Major Field: Higher Education

Biographical:

Personal Data: The writer was born in Checotah, Oklahoma, May 13, 1927, the son of Ollie and Anna Bell Kindell.

Education: The writer attended grade school at Victor Consolidated District No. 2, McIntosh County, and was graduated from the Checotah High School in May, 1945. In the summer of 1945 he was drafted into the United States Army. Upon being honorably discharged in January, 1947, he enrolled at Oklahoma State University and received the Bachelor of Science degree with a major in Agricultural Education in February, 1950. In February, 1950, the writer entered the Graduate School of the Oklahoma State University from which he received the Master of Science degree, with a major in Agricultural Education in May, 1955. Additional graduate work was completed at The Pennsylvania State University in 1957. Requirements for the Doctor of Education degree were completed at the Oklahoma State University in September, 1958.

Professional Experience: The writer entered the United States Army in July, 1945; served as a chief clerk in the personnel department of a Headquarters Company in Nurnberg, Germany, with a rank of Staff Sergeant; and was honorably discharged after eighteen months of service. The writer taught vocational agriculture at Owasso, Oklahoma, for one year and at Broken Arrow, Oklahoma, for five years. He was graduate assistant in the Agricultural Education Department at the Oklahoma State University during 1956-1957 and 1957-1958 school terms.